

THE AMERICAN FARMER

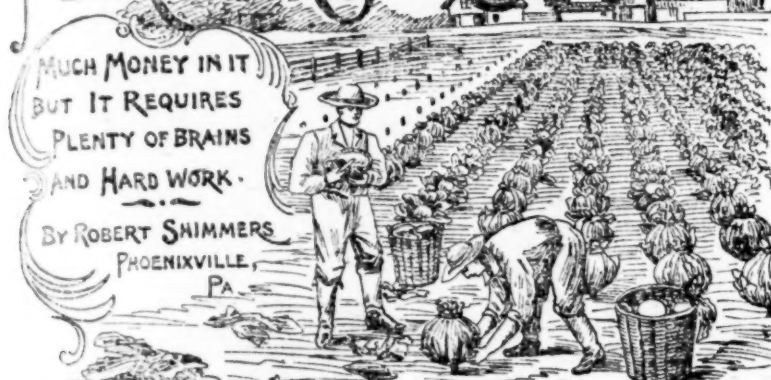
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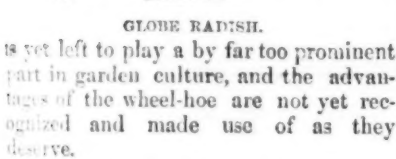
MARKET GARDENING



MUCH MONEY IN IT
BUT IT REQUIRES
PLENTY OF BRAINS
AND HARD WORK.
By ROBERT SHIMMERS
PHOENIXVILLE,
PA.

Money—and money alone—is the object of the market gardener; and the considerations of pleasure, health and morality are necessarily subordinate to that of profit. Business, not pleasure—that is, gardening—for the man who tries to support himself and family by growing vegetables for the market. To be successful it often requires a rare combination of skill and experience, with the thorough understanding of the wants of his available market, and considerable tact, if not shrewdness, in the sale of articles produced. It is no business for the careless, the lazy, or the stupid.

Gardening for money requires unceasing attention, close and thorough management, considerable hard labor, and often more or less exposure to the vicissitudes and inclemencies of the season. Nevertheless, it is true that the majority of the profession make altogether too much work of it, especially by neglecting to make the use of the newer improved implements of tillage. The hand-hoe



GLOBE RADISH.

is yet left to play a by far too prominent part in garden culture, and the advantages of the wheel-hoe are not yet recognized and made use of as they deserve.

THERE WAS A TIME when even the rudest methods combined with hard work insured to the market gardener near large cities a good income. But competition has grown with the demand, and with cheapened and increased production prices have gradually declined until now they are far below what only a few years ago growers would have considered mere cost of production. It is not so many years since the main crop of strawberries sold at 25 cents per quart; and when the price first dropped down to 20 cents, the cry went forth that "strawberry growing does not pay"; then thousands of growers abandoned the business in disgust. At present strawberries are grown at six and eight cents per quart, in many localities, and people are satisfied with the profits. So with vegetables. We have learned to produce much cheaper than formerly, and we can afford to produce and sell at figures which did not cover first cost 10 or 20 years ago, and yet realize a fair profit. Hence, people who continue to grow garden crops in the old laborious and unsatisfactory ways, and with old-style implements, which produce inferior vegetables and fruits at old time cost, cannot successfully meet the competition of their progressive brethren.

The spade must give way to the plow; the rake, and often cultivator also, to the harrow; hand and fingers in sowing seeds to the drill; the hand-hoe to the wheel-hoe, etc. These changes are imperative and unavoidable, if the business is to be made profitable. The grower who has learned to produce most cheaply and can offer the earliest or best articles in his line, is the one who succeeds; and efforts to excel must be made continuously to prevent getting left in the race. This requires the exercise of thought, study—in short, of brains as well as of muscle. Excellence will have its reward; but he who neglects a single point, and allows himself to be excelled by others, is not likely to receive a prize.

SELECTION OF SOIL AND LOCATION. While the home gardener must take the circumstances as he finds them, and try to make the most of opportunities readily made for him, the prospective gardener "for profit only" cannot safely do so. He must select the most favorable conditions or run the risk of seeing his proud business structure tumble

down and his high anticipations wrecked at the very start. It will not do for him to select a location most favorable to the production of perfect vegetables, if such location has no market for them. Of the two considerations, that of market opportunity stands first.

Before locating anywhere with the intent of growing garden vegetables for money, the near markets need the closest study. The difficulty often encountered of putting stuff already produced on a paying market and to turn it into cash is the chief cause of failure with many otherwise good gardeners. Vast quantities of choice vegetables are left to spoil every season simply for want of a local demand for them. The great cities as a rule are well supplied with products of the garden by growers near by, and the competition there is large, and often ruinous, at least, of the extravagant hopes of the shipper; hence the dependence on distant city markets to be reached through the instrumentality of express companies and railroads as carriers is often unjustified, except in case of the early Southern products and of such vegetables as tomatoes, onions, sweet potatoes, melons, and others that are grown in the truck-farm on an extensive scale. The growers of vegetables for market may be divided into three classes, as follows, viz:

First—The Southern truck-farmer, who grows early stuff for Northern markets. His location must be selected with special regard to his railroad connections with the principal city markets, nearness to stations, and the conditions favorable to earlier and perfect development of vegetables, such as rich and warm soil, southern exposure, etc.

Second—The market gardener near the large cities, who raises garden stuff in day-time, and draws his products to the city, and city stable manure back to the farm, during the night, leading a life of unceasing toil, in perpetual fight with competition, but receiving good pay for skillful management.

Third—A local gardener, whose aim is to fill a comparatively small demand in his immediate neighborhood. Sometimes he gives his goods to grocers in near towns to sell on commission, or sells to them to retail to their customers, or he loads up his wagon and peddles his crops directly to the consumer. He has the advantage of cheap land, cheap help, and few expenses generally, and if he is a good salesman as well as a good gardener, he may do well.



CAULIFLOWER.

As nearness to the house or kitchen (in this case the center of demand) is one of the first considerations in the location of home gardening, so is nearness to a market with good, steady demand the chief point of importance for every market gardener. It makes considerable difference whether produce has to be hauled to market, and manure back to the farm, one mile or 10. Often a sudden scarcity of certain

the south or southeast, free from obstruction, trees, etc., and in good state of cultivation.

Want of fertility can be remedied in time, and is not as grave a defect as faulty composition of soil would be. Nor should the soil be excessively weedy, although this defect can also be remedied by perseverance and painstaking, and at some expense. Natural drainage is desirable, but if not perfect, should be made so by thorough under-draining. A piece of drained muck land is generally a valuable addition to the upland property.

Plenty of water is one of the chief needs of the market gardener, and the careful calculator will have an eye on the chance of supply when selecting his location. A running stream, an artesian well, or a pond in close proximity to the beds and buildings, so situated that it can be readily utilized for the various purposes of watering, irrigation, washing vegetables, etc., is likely to be worth hundreds of dollars to the owner.

This chapter, in my estimation, would not be complete without an earnest word of warning to the beginner. I only follow the plain path of duty when I point out the dangers of engaging in this as in any other business on a larger scale than experience and available capital will warrant. Profits are



LETTUCE.

easily figured out and often allure the novice into a feeling of unjustified confidence and security.

Debts are contracted, to be paid with the prospective profits; but such profits do not often materialize. It is safe to commence on one acre of good land paid for, and with implements and conveniences also paid for.

It is very risky to start in on 20 acres mortgaged for half their value, and to work with tools obtained on credit. The former plan admits a gradual increase of the business on a safe foundation, and as experience and means warrant. The latter plan leads the gardener into the meshes of the usurer—the foolish fly into the spider's web and to ultimate ruin. Step by step you will rise from the foot of the ladder to the height of lasting prosperity, but the pretender who surreptitiously usurps a high position will come to a sudden and perhaps deserved fall.

SECRETS OF SUCCESS.

The all-important secret might be told in a few words: "Cater to the demands of the market." Produce just crops articles as the market calls for, and offer them for sale at just such times as people want to buy. The more favorable the combination of circumstances of your own selection—market, locality, soil, and methods—the brighter are the chances of success. Start in modestly to fill a want already existing. Try to have your vegetables in the market a few days, or even a few hours, sooner than your competitor. Take to market only the choicest and keep the poorest stuff out of your customers' sight, thus making a reputation for yourself and your wares, and your success will be at once sure and permanent. Study the peculiarities of your market, and try to hit the periodically appearing demands for certain articles. The best at the right time brings the profits.

It is hardly ever advisable to attempt educating people's tastes. Give your customers exactly what they want; and only after having gained a firm footing among them, or gained a reputation for yourself, would it be wise to begin, cautiously, the work of creating a better demand for things by exposing them in tempting display to people's attention. There is a rule of fashion in markets as well as in attire. When a certain kind of vegetable or fruit is popular in a certain market, it will sell quicker and at higher prices than even a better kind with which people are not acquainted. The process of educating people's taste is always an exceedingly slow one; and the gardener should not make the mistake of growing anything new and superior, but as yet unknown to customers, in the vain hope of gaining an advantage over his competitors, unless the superiority lies in outside attractiveness—large size, fine color, perfect shape, etc., and thus appeals to the sight. High quality alone, without "catchy" appearance, is at a discount in the open markets. Uniformity is one of the chief essen-

tials in making produce attractive and salable. Particular pains should be taken to have all the vegetables in one bunch or package—the radishes, beets, turnips, celery, or what ever they may be—as near like each other as careful selection can make them. Have everything clean and attractive. If the articles to be marketed are of uneven size, grade them with greatest care, and put the larger ones in one package and the smaller ones in another. Careful sorting and packing is just as necessary as skillful growing.

Regularity of supply is still another point of importance. No matter how good and how abundant your produce may be, it will not be appreciated by your customers unless you furnish them regularly just what they want, and when they want it. This inspires confidence and reliance upon you, and insures permanent patronage even at higher prices than customers would be willing to give to the man who offers his wares spasmodically, at irregular intervals, or on rare occasions. It is well worth taking to heart what a most successful market gardener says on this subject:

"If you are catering to the appetites of the townspeople, and desire to extend your list of vegetables, plant but sparingly of such varieties as have not yet come into general use, until the demand for them is created."

"Even to-day there are hundreds of families in every large town and thousands of farmers upon whose tables spinach, kale, cauliflower, salsify, and a long list of other vegetables both toothsome and healthful, have never appeared. To encourage this trade takes time, patience, and no little outlay in labor and cash."

"It has been, and always will be, that each market has its favorites who can sell more at the same price than other growers. If to dispossess your load to-day you sacrifice the price you would be sure of to-morrow; if to-morrow you find yourself compelled to make further concessions in order to sell your products, you may be sure the necessity for making concessions will continue from day to day, until the prices of all goods in your line are depressed below the line of profit to yourself and all other gardeners, and you will have lost the esteem and good will of your competitors without being better thought of by dealers and customers."

"Retailers like to deal with producers whose word is as good as their bond. They desire to be sure that in every basket, box, or barrel the uniform goodness of the contents reaches clear to the bottom. They like men who, when taking orders to-day for to-morrow, can be depended upon to live up to their engagements; whose vegetables are always washed clean, tied tightly, arranged neatly, and whose call can be counted upon with never-failing certainty every week-day, and under all conditions of weather."

MANURES FOR THE GARDEN.

The market gardener can produce in a single season enormous, almost incredible, quantities of vegetables on an acre of ground when systematically and continuously cropped. The quality of most of this produce depends on its succulence and tenderness, and its money value is greatly influenced by its size and earliness, all of which features are the result of rapid, thrifty growth, which in turn is only made possible by the presence of an abundance of available plant food in the soil, especially of the nitrogenous element, which is the chief promoter of succulent growth in bulbous root, leaf, and stalk.

The prices which the gardener obtains for his products, compared with those realized by the farmer for grain, hay, potatoes, etc., are such that he can much better afford to use large quantities of manure, and especially pay out money for them, than the farmer with whom it is only too often the query whether he can profitably use any kind of manure which he has to buy. There is considerable doubt in my mind that wheat, oats, corn, and products of this sort, can be raised at present market rates with profits worth speaking of when manure, whether yard or concentrated, has to be bought at the figures usually paid by the market gardener. The latter, as a rule, finds that the more and the better manure he uses, whether bought or home-made, from a stable or factory, the larger will be his profits. Manure, good manure, and plenty of it—that is the corner-stone of successful market gardening.

This assertion is not likely to be disputed. But there are economical or methodical ways of using it, and there are wasteful ones. It is not always easy to determine in which shape, in what quantities, and to what crops manure can be applied so it will do the most good. The importance of the subject demands our earnest consideration, deep

thought and study; but we should look at the question entirely dispassionately, without preconceived preferences in favor of one manure or prejudices against the other. There are gardeners who claim everything for stable manure, and find no good in "fertilizers," and there are others who put their whole reliance in the latter. As in most other cases, we will find the "golden mean" by far the safest course to pursue.

Stable manure is yet the favorite with the mass of gardeners. If reasonably

having a solid clay bottom, and here it is continuously worked over by a drove of pigs in their search for shelled corn which is scattered over the manure once or twice a day. It makes good manure, but I don't think much of this method of raising pork. The compost heap, while in process of construction, is the most appropriate dumping place for vegetable rubbish of all sorts, house and kitchen slops, and other waste materials. Refuse matter of this kind often adds greatly to the value and effectiveness of the compost.

For general garden crops this manure, when in the right condition, is applied broadcast and thoroughly mixed with the soil, generally by plowing under in lapped-furrow style, and by thorough harrowing.

Every person expecting to make a success should use the best and latest improved implements of all kinds. He should also use the best and most reliable seeds, with plenty of good fertilizer and close attention to his business.

A FARM RAILROAD.

A Single Track Arrangement Which is Coming into Use in Germany and France.

The *Illustrirte Landwirtschaftliche Zeitung* gives illustrations of a single-track railway which is coming into use in France and Germany, and proves a great help in farm-work.

The construction is very simple, and the materials cheap. Nothing but the spade is required for the ground-work. A light rail is laid on short ties, with a very simple joint, as shown in Fig. 1:

The end of the rail projects onto the next block, and this prevents any slipping or twisting. Fig. 2 shows the switch arrangement, which is equally simple.

Fig. 3 shows the car for grass, forage, and similar bulky loads.

Fig. 4 shows a car for potatoes, roots, apples and the like.

Fig. 5 is a modification of the car for carrying rails, heavy timbers, etc. The road is particularly valuable for gardeners, orchardists, etc., where room

comes to a heat and fork the mass over from time to time until it is in the desired condition. It takes time and labor, adding to the original cost, in deciding on the price he can afford to pay for raw manure originally, the gardener will have to take this feature into consideration.

These heaps may be made during the winter right on the arable land and the material will be ready to be spread upon the soil when wanted when the time for planting it with Spring crops has arrived. It is necessary that these heaps be of considerable depth, not less than four feet, in order to prevent the rain water from leaching clear through and washing away valuable food elements.

Some farmers and gardeners utilize pig power in composting manure. The raw material is piled into an inclosed yard

is highly important, but it can be made very useful and labor-saving on any kind of a farm.

The rails and ties can be so arranged that they can be readily taken up and laid down, as they are needed, in different parts of the farm.

A Roaring Cow.

This roaring noise when an animal breathes is due to a spasmodic action of the larynx, that part of the windpipe just under the jaws. The method of treating this disease is to apply a blister or some active liniment to the throat where on pressure it seems to be tender. This will strengthen the muscles that control the larynx, and doubtless remove the difficulty. It will help to give the cow 20 grains of nux vomica dissolved in some oatmeal gruel and mixed with a bran mash.

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LARGE POTATO CROPS.

The Methods Followed in Virginia to Secure Them.

By JNO. G. CHALLICE.

After holding a lengthy consultation with a Virginia farmer who is well posted upon the growth of vegetables, and after a personal observation of his mode of farming the same, I came to the conclusion that good soil, good seed, and plenty of potash fertilizer are the three things essential for the production of large potatoes.

It could be plainly seen that potato crops which were grown with the smallest amount of care must naturally cost more to be brought to maturity than do the average grain crops, and it is impossible to greatly lessen the cost of potatoes needed to plant an acre unless inferior seed is used. Whoever attempts to do this by the selection of such seed or by cutting the tubers to single eyes, runs a great risk of losing more by a poor crop than he saves in the cost of planting. The seed eye will make a more vigorous start if a liberal chunk of starchy nutrition in the form of a potato is attached to it, as this makes them grow much larger and considerably faster than they otherwise would. There are exceptions to this rule, as there are to all of a general character; and the following is one instance.

A North Carolina farmer recently planted six bushels of potato seed with no such starchy nutrition as a fertilizer, and realized about five per cent. more potatoes of a good quality than did the Virginia man to whom I refer in the beginning of this article, who planted a similar amount with an abundance of this fertilizer, and realized therefrom a crop of half-rotted small potatoes, which brought a poor price at a local market. I have seen from four to six bushels of cut potatoes planted to an acre, but those who plant uncut potatoes require from seven to nine bushels, according to the size of potato seed used.

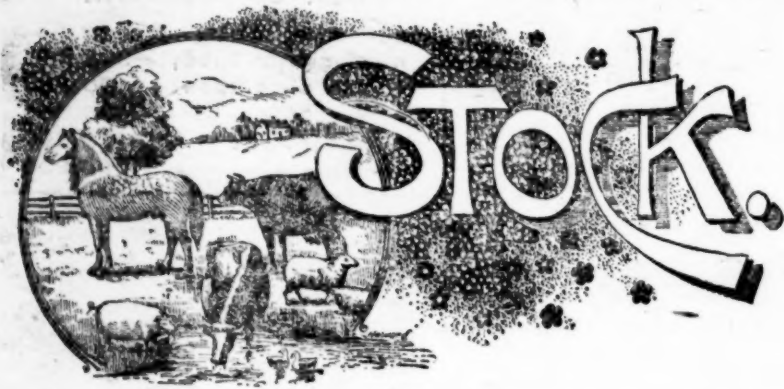
This preliminary increased expense of a good crop pays tenfold the extra cost that is involved. At each further step of the work of growing the crop increased outlay is followed by like gratifying result. This is especially true of the farmer who not only has money to spend, but has the enterprise, industry and executive ability required for such work, which is to be done promptly.

For a crop that involves so large a cost for seed and an extra charge for labor only the best soil should be used. The experienced potato grower no longer manures poor land for the purpose of potato growing. He desires a soil made rich by previous manuring, and by plowing under clover or some other of the leguminous renovating crops. If a large quantity of coarse manure is used to fertilize poor land, it will inevitably cause blight of the foliage and rot in the tubers.

The growers of large potatoes now understand the reason and necessity for heavy additions of potash fertilizer for increasing their crops. It is because stable manure is generally deficient in potash that it does harm by making a succulent, unhealthy growth. The development of starch is through the leaves, and these are kept vigorous by plenty of potash, and when these leaves do their work well the quality of the tuber is greatly improved.

Plenty, but not too much, manure is essential for good potato crops. A drained soil, a clover ley plowed under early in the Spring, and continuous cultivation until the potato tops cover the ground will give the desired condition. If the soil is drained and the potato foliage is large, the crop will not be rotted even in a wet season, unless fresh manure has been applied to it. If the farmer wants to draw out coarse manure in Winter to be plowed under let it be on land intended for the cultivation of corn or other grain, but not for the growth of potatoes.

The potato crop generally pays the careful farmer better than any other. It pays exceedingly large profits about one year in every three, and as well as most other crops in the years intervening. It is a crop that fits well with the system of mixed husbandry that is coming into favor, because it gives employment during a large portion of the year to many farm hands. Of course, no matter how well manured the plant may be, there will be no crop unless increased vigilance is used to destroy the potato-bug larva, and the use of poisons must be prompt, as short delay of a few hours will mean great loss. It is very rare in a hot Summer that the potato grower does not have a few hills ruined because he can stop the destruction.



STOCK

Garget and How to Treat It.

Garget is simply inflammation of the udder, caused mostly by overfeeding with grain, and the resulting inflammatory state of the system, which effects the udder of a milking animal; or by exposure to cold, which has the same result. The treatment is to foment the udder with hot water, rub it dry, and apply camphorated soap liniment. No preparation of iodine is to be used, as it tends to dry the cow by producing absorption of the glandular tissue of the udder. Warm bran mash will be useful, and if the milk is thick inject into the teats with a small syringe some solution of carbonate of soda, then, after 10 minutes, milk it out with the dissolved curd. If the udder is too sore to milk, milking tubes are to be used. The tubes should be kept clean by daily washing in boiling water after use, and should be greased with sweet oil or vaseline when used.

Symptoms of Tuberculosis.

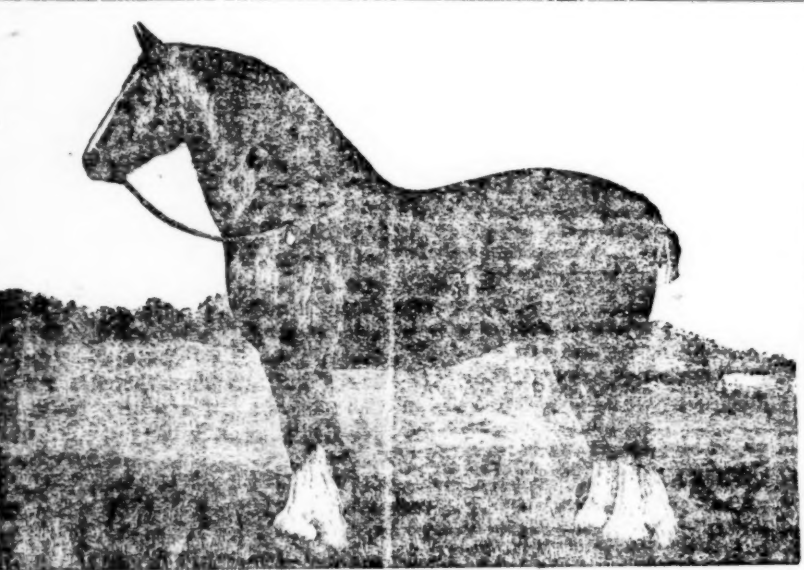
This disease in cattle, which is the same as consumption in persons, is very prevalent among cows. The symptoms of it are a cough, loss of flesh, general weakness, then discharge from the nose, and a rumbling or rattling sound when the animal breathes. The disease also

fect will appear in cheese thus salted. The cost of the salt is so small that it is mistaken economy to spoil the product to save a few cents in a month.

Dairy Maids and Butter Making Abroad.

The management of the great Elbing dairies in West Prussia has adopted for its dairy maids the knickerbocker costume; no corsets are allowed.

There are different grades of dairy maids, distinguished by their caps; the milkmaids wear white caps, the pupils white caps with black velvet bands, and the dairy teachers caps with silver lace. Among the apprentices are many daughters of the landed nobility, but all must don the new costume, which is not only very becoming but cleanly and comfortable, and saves many disasters. So carefully are germs avoided in the dairies of Denmark that the celebrated butter of the country, much of which is sent to England, is washed when necessary in water that has been boiled. The butter is, however, rarely washed, but is first worked over by hand by girls who are scrupulously clean, and afterwards finished by machinery. This butter, which is made with the greatest care from milk that is strained through flannel and afterwards filtered through



Carlton Short Legs 2100 (9066).

Black; foaled 1885; bred by Francis Oldfield, Yorkshire, England; imported 1889 and owned by Blair Bros., Aurora, Illinois; sire Conqueror (3042); dam Honesty by Honest Tom (1111); grandam by Sweep (2082).

affects the bowels, when the symptoms are different, as diarrhoea, drying up of the milk, general dullness and weakness, lying down often, and loss of flesh. The skin is rough and hard, and tight on the body. All these appearances are such as lead some persons to think the cow has the horn distemper, which is a wholly imaginary disease. There is no cure for tuberculosis, but the animal may under good care seem to recover, and the disease become dormant. The animal then may live several years and even die of old age.

Cost of Cow Feed.

The report of the Pennsylvania Board of Agriculture gives the results of some important experiments tried at the State College Agricultural Experiment Station. From these it appears that when the average cost of the food consumed per cow each day was 19.0 cents an increase of 2.5 cents in the cost of their ration produced an increase in the value of the butter product of 3.6, or a net gain of 1.1 cents per cow, amounting to 27.2 cents per day for a herd of 25 cows, or \$72.50 per year. A further increase of 2.7 cents per day in the food, making the total food cost 25.1 cents, gave no further increase in the butter product and was, therefore, fed at a loss.

Artificial Human Milk.

Artificial human milk has been produced by Dr. Backhaus, of Berlin. Cow's milk is collected with hygienic precautions as to cleanliness and submitted to fermentation by means of rennet. This yields a relatively rich milk serum containing albumen and milk sugar. The serum is carefully sterilized, and on the addition of cream a material is produced closely resembling human milk, which may be varied in composition according to the age or particular requirements of the infant. In the course of his investigation Dr. Backhaus ascertained that the city of Berlin consumes with its daily milk three hundredweight of cow dung.

Effect of Impure Salt on Butter.

When good butter, packed in good condition, and having no appearance of white specks, is found afterwards to be speckled, the cause is due to impure salt. Some salt contains lime, either in form of gypsum or chloride, and when mixed with butter this in a short time becomes decomposed, forming lime soaps with the fat of the butter. These soaps are insoluble and cannot be washed out of the butter by any after treatment. The longer the butter is kept, the worse this defect becomes, until in time the effect of the salt is to produce a bad flavor in the butter, thus destroying its quality as well as its appearance. Only the very best salt should be used in butter or cheese making, for the same de-

fects the bowels, when the symptoms are different, as diarrhoea, drying up of the milk, general dullness and weakness, lying down often, and loss of flesh. The skin is rough and hard, and tight on the body. All these appearances are such as lead some persons to think the cow has the horn distemper, which is a wholly imaginary disease. There is no cure for tuberculosis, but the animal may under good care seem to recover, and the disease become dormant. The animal then may live several years and even die of old age.

Cause and Cure of Bloody Milk.

This disease is due either to derangement of the action of the liver, or in some cases is the result of abnormal action of the milk glands. Some cows suffer from it in consequence of overfeeding, by which an inflammatory condition of the udder is produced, thus exciting the action of the milk glands, which, on account of the udder being overcharged with blood, secrete some of this blood, which mixes with the milk. This blood would otherwise be milk, for milk is a direct product of the blood, and if the udder were in a normal condition the blood would be changed into milk by the healthful action of the glands. Sometimes the liver is so disordered by overfeeding of rich food that the blood is not sufficiently purified, and in this case the impurity of the blood escapes through the milk, instead of, as at other times, through the kidneys, when the disease would appear as red water. At times this fault in the secretory function is constitutional, and a heifer may always give bloody milk, and may continue to do so, thus being useless in the dairy. That this kind of milk is wholly abnormal is shown by the fact that calves will not drink it. The treatment should be by laxative and cooling medicine, such as epsom salts given in half-pound doses daily for a few days, after which the system will probably be relieved of the undue strain on the secretory organs and the milk be all right.

Farmers in Mexico use oxen of one color in the morning and of another color in the afternoon. They have no reason for doing so beyond the fact that their forefathers did it, and they conclude it must be the right thing to do.

Feed Hood's Sarsaparilla

The nerves upon pure blood, and they will be your faithful servants and not tyrannical masters; you will not be nervous, but strong, cheerful and happy. To have pure blood, and to keep it pure, take Hood's Sarsaparilla. The after-dinner pill and family cathartic, 25c.

TOBACCO CULTURE.

Some Plain Directions as to Planting, Soil and Culture.

A Florida subscriber, who thinks, and rightly, that the Cuban war will result in raising the price of fine tobaccos, making it good business to go into raising the same in his section, writes to us for directions. The following, taken largely from the Bulletin of the Agricultural Department of the United States and of the various Experiment Stations, sets forth the best modern ideas:

PREPARATION OF SEED BED.

Tobacco seeds are planted in hot beds, cold frames, or open-air beds, according to the time when sown and the climate of each locality. The young plants are sensitive to cold, and hence in the seed bed usually require the protection of brush, cloth, or glass. Newly cleared land, well drained, but not deficient in moisture, is preferred for the seed bed, since it is more nearly free from grass and weed seeds than old land. But clean cultivated land, made very rich with well-rotted manure, or with fertilizers, will answer. All manure applied to the seed bed should be free from grass seed, and should be applied about a month before the tobacco seed is planted. Still further to destroy weed seed and to furnish a potassic fertilizer, the bed should be burned. This is done by building on the spot a fire of brush or wood, letting it burn about an hour in one place and then drawing the fire on to another part of the bed. Avoid burning when the ground is wet. After the ashes cool all lumps of charcoal are raked off. If a large bed is to be prepared it may be broken both ways with the colter. For a small bed on new ground an old ax may be used, cutting into the ground till the bed is divided by the ax furrows into sections about six inches square. In this way all roots are cut into pieces about six inches long. The soil is then firmed with mattock or rake, and all roots are taken from the bed and manure worked in. In all of this preparation the subsoil should not be brought to the surface. For an open-air bed or cold frame, boards should be placed around the bed, making the frame about 20 inches high on the north side and 10 inches on the south side. A covering of thin cloth is then put on and held in place by various devices.

SOWING THE SEED.

Different amounts of seed are recommended by various authorities. The Alabama College recommends one tablespoonful for every 100 square yards of seed bed. A good stand means about 1,000 plants per square yard. A later sowing will guard against the calamities which so frequently destroy the young plants. Avoid seeding too thick or the plants will be dwarfed. The seed is mixed with ashes, or other light-colored substance, and usually sown broadcast over the surface. Sowing half the seed in one direction and then cross-sowing the remainder will secure an even distribution of seed.

The seeds are covered by whipping the soil with a light brush, by tramping with the feet, or by rolling. Fine brush, placed on the bed after the plants are up, serves to protect from frost and to preserve the moisture in the soil. The bed must be well drained, and all drains should be so arranged that no water can flow over any of the seeded surface, since the drift would cover the seed too deeply.

DATE OF SEEDING.

The date of seeding varies with the latitude. The aim is to sow as early as possible without subjecting the plants to excessive cold. Late sowings suffer most from insect ravages. In Florida the seed may be sown as early as January 1. In Virginia, the middle of February is an early date for sowing. In Colorado seeding about April 1 in hot beds was successful.

TREATMENT OF YOUNG PLANTS.

The seed bed should be located near a water supply, as it is necessary, by frequent waterings, to keep the plants growing rapidly. When the leaves are as large as a quarter of a dollar the cover of the frame is removed, or it may be removed sooner if the seed has been sown late and the weather is warm. Applications of dilute liquid manure will hasten the growth, or other manures may be applied when the leaves of the plants are dry. If glass has been used as a covering of the seed bed, it is especially important that the plants should be gradually hardened before transplanting.

PREPARATION OF THE FIELD.

Prepare the land, as for a garden, by several plowings and harrowings. Lay off the rows about three and a half feet apart, applying the fertilizer in the drill, and with turn-plow throw up beds above the fertilizer. On heavy soils, hills about three feet apart are formed with the variety grown, with the character of the soil, and with the climate. At greater distances than indicated above, tobacco increases in size and coarseness. When more crowded, the size and weight of tobacco are decreased, while sickness and closeness of texture are gained. The Colorado Station recommends three feet by two feet for Havana varieties, or four feet by three feet for the larger kinds.

TRANSPLANTING.

A tobacco plant should have leaves at least as large as a silver dollar before it is set in the field. The proper time for transplanting is when the largest leaves are about two and a half inches wide. If possible, choose showery

weather; but by watering after set-planting, tobacco plants may be set in dry weather. One man drops the plants at regular intervals and another following sets the plants in a hole made by a sharpened stick, pressing the earth firmly about the roots.

The plant bed must be thoroughly wet before the plants are drawn. The season for transplanting varies with the latitude, from April to June.

CULTIVATION.

As soon as the plants are firmly rooted the earth near the hill is cultivated with a hoe. During the season the plow may be used in several cultivations, but after the tobacco plants have attained considerable size only hoe cultivation is practicable.

As soon as the buttons, which will develop into blossoms, appear topping is in order. This consists in pinching off with the finger nails the flower shoot and some of the upper leaves of the plant. Priming or pruning, which is done at the same time as topping, consists in taking off four or five of the bottom leaves. On the bright varieties these lower leaves are sometimes allowed to remain as a protection to the other leaves.

The number of leaves left after topping and priming varies from 8 to 13, according to the class of tobacco. The smaller number of leaves gives a heavier, stronger grade of tobacco. After topping, sprouts or suckers put out from the axils of every leaf. To break these off and to pick off the worms, which at that season are plentiful, the laborers must go over the crop at least once every 10 days.

MANURING.

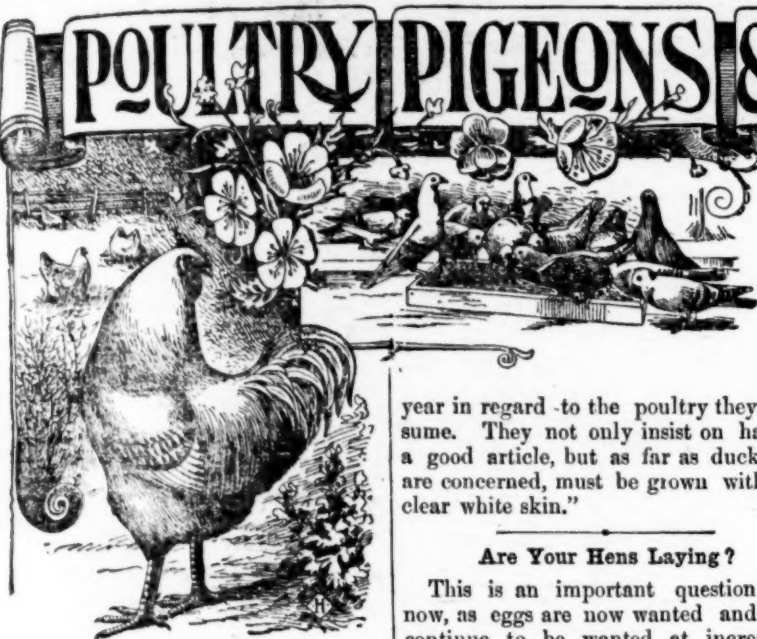
In the Connecticut State Report for 1884, the following statements occur: "It would be going too far to assert that the use of the chlorides (muriates) of fish or slaughter-house fertilizers must invariably produce tobacco of inferior quality. The tobacco grower will, however, do well to avoid the use of the above-named fertilizers, which experience in all countries agrees in indicating to be as a rule likely to injure the burning quality of the leaf." At the Kentucky Station nitrate of soda gave a little larger yield of tobacco than did cottonseed meal or sulphate of ammonia. The Kentucky Bulletin also states, as a result of experiments on the experiment farm, that 160 pounds of the nitrate of soda per acre or 340 pounds of cottonseed meal furnished sufficient nitrogen for the tobacco crop. The conclusion was also reached that more than 160 pounds of either sulphate or nitrate of potash would increase the yield. The muriate gave the larger crop. No test was made as to the effect of the various potash salts on the burning quality of tobacco. In this series of experiments every fertilizer used, nitrate of soda, acid phosphate, and sulphate of potash, and every combination but one, afforded considerable net profit. The highest net profit resulted from the use of a complete fertilizer, and was nearly equalled by the profit on a plot fertilized with sulphate of potash and nitrate of soda.

THE MARKETS.

Produce.

New York, Nov. 27.—Butter—Fancy State, 24c; extra fancy, 25c; good fancy, 23c; choice, 22c; common, 21c; low, 20c; poor, 19c; very poor, 18c; inferior, 17c; lowest, 16c. Eggs—Fancy, 28c; extra fancy, 29c; good fancy, 27c; choice, 26c; common, 25c; low, 24c; poor, 23c; very poor, 22c; inferior, 21c; lowest, 20c. Corn—No. 1, 50c; No. 2, 48c; No. 3, 46c; No. 4, 44c; No. 5, 42c; No. 6, 40c; No. 7, 38c; No. 8, 36c; No. 9, 34c; No. 10, 32c; No. 11, 30c; No. 12, 28c; No. 13, 26c; No. 14, 24c; No. 15, 22c; No. 16, 20c; No. 17, 18c; No. 18, 16c; No. 19, 14c; No. 20, 12c; No. 21, 10c; No. 22, 8c; No. 23, 6c; No. 24, 4c; No. 25, 2c; No. 26, 1c; No. 27, 1/2c; No. 28, 1/4c; No. 29, 1/8c; No. 30, 1/16c; No. 31, 1/32c; No. 32, 1/64c; No. 33, 1/128c; No. 34, 1/256c; No. 35, 1/512c; No. 36, 1/1024c; No. 37, 1/2048c; No. 38, 1/4096c; No. 39, 1/8192c; No. 40, 1/16384c; No. 41, 1/32768c; No. 42, 1/65536c; No. 43, 1/131072c; No. 44, 1/262144c; No. 45, 1/524288c; No. 46, 1/1048576c; No. 47, 1/2097152c; No. 48, 1/4194304c; No. 49, 1/8388608c; No. 50, 1/16777216c; No. 51, 1/33554432c; No. 52, 1/67108864c; No. 53, 1/134217728c; No. 54, 1/268435456c; No. 55, 1/536870912c; No. 56, 1/1073741824c; No. 57, 1/2147483648c; No. 58, 1/4294967296c; No. 59, 1/8589934592c; No. 60, 1/17179869184c; No. 61, 1/34359738368c; No. 62, 1/68719476736c; 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POULTRY PIGEONS & PET-STOCK



Crossing Ducks.

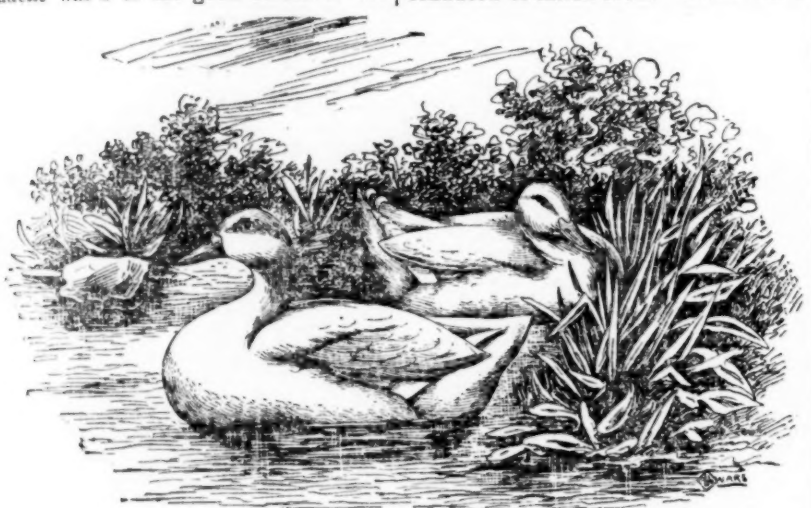
Mr. James Rankin, South Easton, Mass., who raises thousands of ducklings for the Boston market, gives the following as his experience in crossing Rouens, Pekins, Cayugas and Aylesburies. He says:

"I had about made up my mind before the trial that the best bird would be a cross between the Aylesbury and Pekin, and as I had two fine imported Aylesbury ducks, I selected a dozen of my largest Pekin ducks for the cross, and confined them for the season, giving them the best of feed and care. So confident was I of the good results of the

year in regard to the poultry they consume. They not only insist on having a good article, but as far as ducklings are concerned, must be grown within a clear white skin."

Are Your Hens Laying?

This is an important question just now, as eggs are now wanted and will continue to be wanted at increasing prices for the next four months. If the hens are not laying, what is the cause? The pullets are now old enough, and the old hens are now through the moult. There must be some cause. It cannot be the weather, as that is mild enough here in the South. The probability is that the cause is the too fat condition of the fowls. The grain and seed crops have been ripening one after another for the past four months. There has been an abundance of insect food, and wild berries and green food of all kinds have not been far from seeking since Spring. All these causes, even if little or nothing has been actually fed to the fowls, have conducted to fatten them. A fat hen is

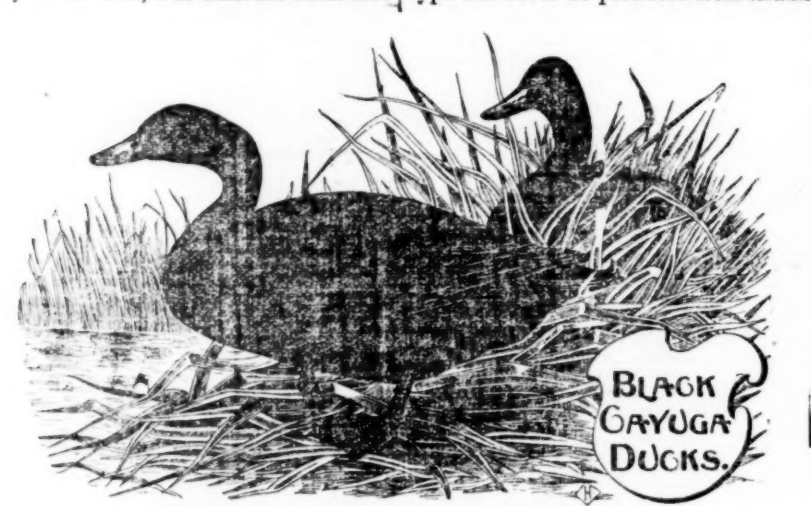


PAIR AYLESBURY DUCKS.

cross that every egg those birds produced was carefully treasured and regularly placed in the machine every seven days, the balance of the trays being filled with Pekin eggs.

"Those eggs hatched remarkably well, nearly every egg producing a strong, healthy duckling, so that I had during that season quite a sprinkling of flesh-colored bills among my flock of Pekins. The mortality was very small, not more than one per cent, but when a duckling died I found it was sure to have a flesh-colored bill. As the birds grew I noticed that the crosses did not hold their own, but were perceptibly smaller, while every runt or scrub in the flock always wore a light-colored bill. Visitors marked the difference and inquired if they were of the same age. I always began marketing the Pekins first and the crosses last, as I found they required more time to mature. The difference in weight was in favor of the Pekins—fully one pound to the pair. My pickers complained bitterly of the crosses, as the skin had the habit of coming away with the feathers, materially lengthening that process and cutting down their receipts. Wishing to ascertain the quality of the flesh, I at different times sent

never a good layer. She may drop an egg now and again, but she will not be a regular day-by-day layer. The laying hen is an active, well-nourished hen, but not a fat one. If your hens are in this fat state, before you can expect eggs you must get them rid of the superfluous fat, but not make the hens poor. To attain this end, stop feeding fattening food. Corn is one of the best foods for producing fat. It ought only to be fed in winter. Give oats, wheat, and barley, mixed, and do not give too much. Compel the hens to exercise themselves in order to supplement the food fed to them, and in this way reduce the fat. Another cause may be cold, damp roosting places. The nights are now cold, and the hens should have warm, dry quarters, free from drafts, or they will not lay regularly. See to it that the hen houses are repaired and made wind and water tight. A frequent cause of non-laying is the keeping of hens that have been in-bred until they have lost their natural vigor of constitution. The influence of selection and the breeding of egg-producing breeds from the best strains is as great among poultry as among other live-stock. A good laying type will never be produced from strains



BLACK CAYUGA DUCKS.

in boxes of the dressed birds by themselves, interviewed dealers on the subject, requesting them to inform their customers of the fact, and if there was a difference in quality to note it. The reply was that one was just as good as the other, but they preferred the Pekins because they were larger. The result of that experiment was a loss to me of over \$50, as I sold over 200 pairs of the crosses.

"In my trial of Rouens I used pure-bred birds, and though the Rouens ran as heavy as the Pekins when mature, yet they were not more than three-fourths as large when nine weeks old, and it required 12 weeks to make them as large as the Pekins at nine weeks. Besides, I found them more delicate to rear, and when confined in large numbers they cannot rough it with the Pekins. The color of the skin was against them, and as I had but few I mixed them with Pekins, and nothing was said, though my dealers told me plainly that had they been in large quantity they would have been obliged to cut me two cents per pound.

"I was best pleased with the cross obtained from Cayuga drake with Pekin ducks. It made a fine, plump bird, matured as early as the Pekins, was as large, and the only drawback was the color of the skin, which was worse than either of the other breeds.

"The fact is, the public at large is becoming more and more fastidious every

whose distinctive feature is feeding for the pot. This consideration involves the acquirement of knowledge of the different breeds and their characteristics and the selection from amongst the breed selected of those birds which have the laying propensity most fully developed. If you have got a strain of fowls of this type, it will be useless to expect a large production of eggs. The remedy will be to make a change. Buy now a pure-bred male bird of some good laying strain and breed some of the best laying hens you have to him. This will improve the flock next year, and the same course can then again be repeated by procuring another pure-bred male of no kin to your improved hen. In this way, and with care in feeding, a good laying strain of fowls can be had. It will pay to get this. Eggs are always in demand, and when cheapest cost least to produce.

A hen is a profit until she is three years old; after that, the number of eggs usually decreases, and she should not be kept longer unless she is a world-beater and perfectly healthy.

Beecham's pills for constipation 10¢ and 25¢. Get the book at your druggist's and go by it.

Annual sales more than \$500,000 boxes.

THE APIARY.

Humming.

A few colonies will do well where many could not prosper.

When making artificial swarms, the queens and drones should be raised from the best colonies.

Roses do not secrete honey in their flowers. Bees visit them to secure the pollen, which is very abundant.

Public speakers should frequently use honey. The formic acid which it contains cures affections of the mouth, throat and lungs.

In preparing bees for winter, the best plan is to leave the combs as the bees arrange them. They like to have empty cells in the center of the brood-nest to cluster in.

Honey should be stored in dry rooms. It will gather moisture and even mould in a damp cellar; but if properly sealed and kept cool and dry, it will keep for years.

Buckwheat honey is that made last and is the darkest. Though strong in flavor, it is preferred by some to that more delicately flavored. But as buckwheat honey does not sell well it is usually left for the bees to eat during the winter.

Those who make a study of insect life tell us that bees are not without enemies. Wasps, while useful in some respects, steal honey and harass the bees constantly. Sparrows and the blue tit-mouse eat bees. It is said that sparrows eat only the drones.

An attempt is to be made to introduce into the United States the giant bees of India. These bees build immense combs in the forests; their tongues are longer than those of other bees, and they are thus enabled to get honey from many flowers which are inaccessible to the common bee. As the drones are no larger than ordinary bees, it is thought they will readily breed with the races now domesticated here.

Many have an idea that while only the best honey must go to the market, that of even the poorest quality is good enough for food for the bees. A common winter danger to bees is dysentery, which is usually caused by a cold hive or improper food. The best winter food for bees is pure white honey. If artificial food is necessary, pure granulated sugar sirup should be used.

A Russian bee-keeper has been making some very interesting experiments to determine how bees obtain the moisture they need during the winter. Honey, as is well known, readily absorbs moisture. At a temperature of 76°, three grains of uncapped honey will absorb fully their own weight of water in 24 hours. During the winter, the bees uncapped honey in advance of their needs and the uncapped honey absorbs from the air the necessary moisture.

Bees on a Railroad.

In Switzerland, on the lines of some railroads, the men who work on the roads are allowed to keep bees. The railroad directors give the men small grants of land, and this year they have given the men pamphlets with instructions how best to care for the bees. The men have been so successful that last year they sold 3,500 pounds of honey. The care of the hives and bees does not interfere with their work on the railroad, and they are more contented, the authorities say, because of this interest and the return it makes in money.

Laying Down Trees in the Winter.

It has been suggested that young fruit trees should be trained with the roots on the two sides only, so that by bearing on the trees they might be laid down on one side and covered in the winter for protection. But this plan has not yet been found practical, for the reason that the tree needs all its roots, and the continual cutting away of half the roots must so weaken it as to make it unprofitable. The suggestion has never been carried into practice yet, and it is not probable it will ever be, on this account and other reasons equally unfavorable.

HAST THOU SEEN IT?

1. Small instruments of ivory used in playing upon the lyre. 2. A town of Spain. 3. To grip. 4. Carditia. (Dungl.) 5. An instructor. 6. Moves against. 7. To sprinkle. 8. A device. 2. A genus of endogenous plants found in tropical America. 3. The power of taking a thing before it is offered. 4. American Congressman; 1828-1890. 5. Terminable. 6. Handgrips improperly compared to a state. (Dungl.) 7. Deaf. 8. A fox of North Africa. 2. One who cultivates any study or art. 3. A fee paid for goods sold in a hall. 4. Rich kinds of satin made in India. 5. Mixtures of eggs and cream. (Nuttall.) 6. A genus of myriacous plants. 7. One of the Shetland islands. 1822. (Web.) 10. To chant. 11. Whip-lashes. 12. Looked with eyes wide open. 13. A pace. —Miss Fitz, St. Mary's, O.

Faultless Quaker Dish Washer.

THE AMERICAN FARMER pays considerable attention to household affairs, and we know that our ladies are nearly, if not quite, as much interested in agricultural matters as our male readers, and we feel confident that by suggesting the use of a humane device for the ladies that our farmers will not object; because farmers love their wives, you know. The Faultless Quaker Dish Washer is designed to lessen the labors of the housewife and to make easy that dreaded job, dish washing, which occurs with the regularity of a time-piece three times a day. By the use of the Faultless Quaker sealed hands are not known. It brings dish washing within the pale of a pleasurable duty, whereas by the old method it is the drudgery of the kitchen. The Faultless Quaker is as represented, as we very well know from actual investigation, and the Quaker Novelty Co., its manufacturers, of Salem, Ohio, stand ready to give information through their illustrated pamphlets and testimonials to any who may apply. They offer splendid inducements to agents. If you are interested write at once. It may result in your engaging in a lucrative business. When you write say we told you to.



Faultless Quaker Dish Washer.

1. Split pulse. 2. A fine cotton cloth of India. 3. Village, Walker Co., Ala. (H. & Mc.) 4. To be put gently, as liquor. 5. A shrub of the holly family. 6. The lowest groups of animals in which no nervous system has been observed. 7. The unfortunate heroine in the play "The Maid's Tragedy." 8. The Gold-finch. 9. German author; 1740-1822. (Web.) 10. To chant. 11. Whip-lashes. 12. Looked with eyes wide open. 13. A pace. —Miss Fitz, St. Mary's, O.

NO. 169—TRANSPPOSITION.

This farmer, I sing his praise, His life so free, and homely ways, His primal life (tis so to me); He sells for cash, and buys on three Months time—tis mine before he pays.)

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THE ENIGMA.

(For the leisure hour of readers, old and young. All are invited to contribute original puzzles and send solutions to those published. Answers and names of solvers to this issue will appear in two months. An asterisk (*) after a definition signifies that the puzzle is absolute. Address letters for this department: "Puzzle Editor," THE AMERICAN FARMER, 1729 New York Ave., Washington, D. C.)

ENIGMATIONS—NO. 18.

120—For mid-able. 141—Dose-a. 140—S-T-R-A-P-P-E-R. 142—S-B. 143—D-R-A-G-E-D; D-A-N-G-E-R-E-D. 144—C-A-R-E-S-I-N-G-L-Y. 145—P. 146—A-R-S. 147—P. 148—A-R-S. 149—A-R-S. 150—A-R-S. 151—A-R-S. 152—A-R-S. 153—A-R-S. 154—A-R-S. 155—A-R-S. 156—A-R-S. 157—A-R-S. 158—A-R-S. 159—A-R-S. 160—A-R-S. 161—A-R-S. 162—A-R-S. 163—A-R-S. 164—A-R-S. 165—A-R-S. 166—A-R-S. 167—A-R-S. 168—A-R-S. 169—A-R-S. 170—A-R-S. 171—A-R-S. 172—A-R-S. 173—A-R-S. 174—A-R-S. 175—A-R-S. 176—A-R-S. 177—A-R-S. 178—A-R-S. 179—A-R-S. 180—A-R-S. 181—A-R-S. 182—A-R-S. 183—A-R-S. 184—A-R-S. 185—A-R-S. 186—A-R-S. 187—A-R-S. 188—A-R-S. 189—A-R-S. 190—A-R-S. 191—A-R-S. 192—A-R-S. 193—A-R-S. 194—A-R-S. 195—A-R-S. 196—A-R-S. 197—A-R-S. 198—A-R-S. 199—A-R-S. 200—A-R-S.

*See Column.

Authors of word-forms: Lord Baltimore and Primrose, J. E. W., Rex Ford, Dan D. Lyon (2).

ENIGMANIACS.

Primrose, Pearl, Glen, Malenco, Ben Tivoto, Ed. Alumnus, Fella, Mary Masker, E. Lucy Date, Harry, Serpeggiando, Jos. D. Somers, Nys, Orlando, A. F. Armer, Pearl, T. O'Bozzan, Lillian Locke, Jann, Arty Fishel, 2 E. Z., Guidon, Beech Nut, N. E. Body, Carl, Haidee, Ellsworth, Presto, Solon, Fanny, Ingleside, Rodger, Cinders, Nednae, Holly, Dan Knight, Locust, Frantz, Cecil, Caro, L. M. N., A. L. Vin, N. E. Moore, Lucile, Swamp Angel, Esperance, K. T. Did, Damon, Mesa, Annette, X. L. C. R., F. L. Smith, Jo King. Total, 54.

Prize Winners.

1. Not won. 2. Jos. D. Somers. 3. Orlando. 4. G. R. 5. Jannus.

ENIGMANIA—NO. 20.

NO. 150—TRANSPPOSITION. At Woodlawn Springs the Summer air Thrills sweetly while the robin sings; The forest breathes a welcome fair At Woodlawn Springs.

We catch a glimpse of fleeting wings, Above, around us everywhere, And far and wide the woodland rings.

The flowers ope a perfume rare; The oak a grateful shadow flings; And little time is given to care— At Woodlawn Springs.

NO. 160—2-DIAMONDS.

1. A letter. 2. The panda. 3. Amazed. 4. Any one of several metamorphic forms of the same substance. 5. An aquatic European plant with bayonet-shaped leaves. 6. A table on which hazard is played. 7. Important ores of iron. 8. Conducts. 9. Dresses. 10. Pipe-connections changing directions at right-angle. (Century.) 11. A letter.

1. A letter. 2. Anything that fatigues. 3. The testis. 4. Elementary substances found combined in the minerals menacene, rutile, sphene, etc. 5. A town of Spain, in Catalonia. 6. A table on which hazard is played. 7. Pertaining to, concerned with, or determined by, the genesis of anything. 8. A glucose found in the bark of the lichen. 9. A white crystalline resinous substance extracted from cuticle-percha by the action of alcohol or ether. 10. Alone. 11. A letter.

1. A letter. 2. Babylonian measures of capacity. (Century.) 3. Minerals occurring in white rounded crystalline masses. 4. Any one of numerous species of bright-colored song birds. 5. A Linnean genus of free-flowering composite plants, mostly from South Africa. 6. A table on which hazard is played. 7. Light woven fabrics. 8. Walled places. (Century.) 9. A genus of shrubs including gooseberries and currants of many kinds. 10. As? 11. A letter.

—EUGENE, Cleveland, O.

NO. 163—NUMERICAL.

A brisk and lively girl was she, As I to 5, with 9, could be. Upon the 5 to 9 she stands, With boathorn in her trembling hands, For she had 3 to 6, 9, 8. The youth who was her boating mate. For had he not with scorn malign'd The whole, a dish on which they dined, Knowing that she, the same had made, The which uncommon skill displayed? She never would, while she was living, Condone his crime, and be forgiving. But her relentless vows miscarried; E're the month ended they were married. —MAUDE, St. Joseph, Mo.

NO. 164—SQUARES.

1. Small instruments of ivory used in playing upon the lyre. 2. A town of Spain. 3. To grip. 4. Carditia. (Dungl.) 5. An instructor. 6. Moves against. 7. To sprinkle. 8. A device. 2. A genus of endogenous plants found in tropical America. 3. The power of taking a thing before it is offered. 4. American Congressman; 1828-1890. 5. Terminable. 6. Handgrips improperly compared to a state. (Dungl.) 7. Deaf. 8. A fox of North Africa. 2. One who cultivates any study or art. 3. A fee paid for goods sold in a hall. 4. Rich kinds of satin made in India. 5. Mixtures of eggs and cream. (Nuttall.) 6. A genus of myriacous plants. 7. One of the Shetland islands. 1822. (Web.) 10. To chant. 11. Whip-lashes. 12. Looked with eyes wide open. 13. A pace. —Miss Fitz, St. Mary's, O.

NO. 167—DECAPITATION.

My life is one of tiresome toil,— A digger in a graveyard; In total's blast or Summer's broil My life is one of tiresome toil. I ever have to slave hard; My life is one of tiresome toil,— A digger in a graveyard! —PRIMROSE, Baltimore, Md.

NO. 168—ICOSAEDRON.

1. Split pulse. 2. A fine cotton cloth of India. 3. Village, Walker Co., Ala. (H. & Mc.) 4. To be put gently, as liquor. 5. A shrub of the holly family. 6. The lowest groups of animals in which no nervous system has been observed. 7. The unfortunate heroine in the play "The Maid's Tragedy." 8. The Gold-finch. 9. German author; 1740-1822. (Web.) 10. To chant. 11. Whip-lashes. 12. Looked with eyes wide open. 13. A pace. —Miss Fitz, St. Mary's, O.

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Stop Naturally!

Don't tobacco spit and smoke your life away, and go on suffering from nerve troubles that make the strongest man weak, dizzy and undecided, prevent him from doing the right thing at the right time, all because the blood is tobacco-poisoned. The natural way to stop a thing is to get a distaste for it. You can stop naturally this brain-weakening, nerve-ruining, tobacco disease by the use of the original, time tested, guaranteed tobacco habit cure.

NO-TO-BAC KILLS TOBACCO

You ask for proof? Test No-To-Bac under your absolute guarantee. Feel how quickly No-To-Bac kills the desire for tobacco, eliminates the craving, steadies the nerves, increases weight, makes the blood pure and rich, tingling with new life and energy. Bloating days will be gone, the smile will be brighter. The old man in feeling is made young again and happy.

OUR GUARANTEE IS PLAIN AND TO THE POINT. Thirty days' treatment, \$2.00. Sold by druggists everywhere under a full money-back guarantee. If you do not feel better, your money is refunded. We don't claim to cure everyone, but the percentage is so large, that we are confident of an occasional failure, no large money. **WE HAVE FAITH IN NO-TO-BAC.**

Book called "Don't Tobacco Spit and Smoke Your Life Away," mailed free. Remedy Co., Chicago office, 45 Randolph St.; N. Y. office, 10 Spruce St.; Canada office, 24 St. Paul St., Montreal; Laboratory, Indiana National Springs, Ind.

Up with the birds, too dark to see.

He feeds the stock, and patiently Chops wood until the shadows raise,— This farmer brown.

Then on the corn-field dolly plays, Unmindful of the tropic blaze, Or all day walks in ecstasy Behind the creaking harrow. He But FINE, next day, all former days,— This farmer, Brown.

—NOVUS HOMO, Leesburg, Ind.

NO. 170—QUADRUPLE WORD-ENIGMA.

In the "first glad rays" of morning glowing low down in the East And bursting forth upon the "World in glorious" golden floods, In the "gruesome voices" of the night, which suddenly have ceased.

Their weird and ghostly orgies in the meadows and the woods. In the "gently waving golden" stalks of fully ripened grain.

Swaying lightly in the Autumn winds that blow o'er mead and hill. In the laughing "rippling crystal stream" tumbling o'er and o'er again.

As it seeks its pebbled course on through the orchard near the mill.

In childhood's joyous sunny hours, how merrily we played Together on the grassy slope in the orchard near the mill.

When the fruit trees in their dress of fragrant blossoms were arrayed— The sweetness of their odors linger in my memory still.

Then two little hearts were happy, so innocent and light, With no cruel cares and sorrow their second lives to fill.

Every moment, every hour, was fraught with pure delight As we sweetly played together in the orchard near the mill.

In later years, as schoolmates, sauntering down the shady lane To the ancient village school-house with its old-fashioned door— Even now I see the row of solemn windows once again.

And the rough-hewn desks and benches, and the sagging, creaking floor. Then we two grew up together, as companions kind and true.

Till a nobler, holier feeling seemed our youthful hearts to fill When there came first touch of TOTAL; our love we then both knew.

And I kissed my crush gently in the orchard near the mill. The bright and happy childhood scenes have passed like smoke and wind.

They have vanished in the onward march and ceaseless tread of time, But the true love born in our young days grows more sincere and fast.

Binding closer still our hearts in an affection pure, sublime, And as we stroll among the once familiar scenes of yore, And see the crumbling schoolhouse, the lane, the grove, the hill, We live all through its sunny, sunny childhood hours once more.

When we sweetly played together in the orchard near the mill. —DAN KNIGHT, Philadelphia, Pa.

EMOLUMENTS.

For first complete list to this month's Enigmas, \$1. 2. Second complete, 50 cents. 3, 4, 5. Three bound books awarded by lot among persons sending two or more answers. Best batch of flats, bound book; best batch of forms, same. Open to all.

ENIGMANIA.

We learn with deep sorrow of the sad accident which recently befall California, whereby he very narrowly escaped death. The young man was caught in the machinery of a flouring mill on Nov. 10th, and terribly injured, but at this writing is said to be out of danger, a truth which doubtless brings much relief to the heart of the devoted and noble mother. The sympathy of her many friends among the fraternity of Puzzledom will be with her in her troubles.—Examination has brought to light the fact that our files are much more beautifully stocked with forms than files, consequently this month's puzzles have been served out accordingly. Eugene's trio of HAZARDABLE diamonds will be enjoyed and X. L. C. R.'s clever squares appreciated by solvers. The balance of the forms are new and good and the pair of transpositions bright and well worked out. Novus Homo's PRIME is marked "rare" in Webster, and the puzzle may cause some searching.—Miss Fitz, one of Mystery's supporters, will be accorded a welcome by our crew. The locomotion is put together in approved style. There seems to be a tendency on the part of a number of formists to weave diamonds about, or base squares upon, words selected for the purpose from Lippincott, Phillips and other authorities, in preference to choosing words from the International. This is a habit to be frowned upon, and, until more of Webster's tough nuts have been cracked, TSCHAKMEKS and TCHAWYCHAS for instance, let us have dictionary bases every time it is possible.

We also notice that some of the boys select obsolete in preference to "live" words, thinking it makes the puzzles more difficult of solution. This is not necessarily a fact, neither is the practice a good one.—Commencing with last month the price of THE AMERICAN FARMER was reduced one-half, making it possible to secure the paper a whole year for 25 cents, a departure which we hope will result in placing it in the hands of the majority of puzzlers who have not as yet sent subscriptions. As an extra inducement, all persons who send 25 cents, stamps, silver or money order, before January 1, 1896, will receive *Theodora*, Beech Nut's semi-monthly publication, three months free. To take advantage of this offer address letters to NOVUS HOMO, 1729 N. Y. Ave., Washington, D. C., marking them personal. Otherwise you may fail to be placed on the roll for *Theodora*.—Before we have the opportunity of again speaking to you through this column, the Eastern Puzzlers' League, the representative body of Puzzledom, will have held its semi-annual Convention at Baltimore. A strong effort is being made to assure a successful meeting, and it will succeed, unless all signs fail. Seven new members were enrolled at the Washington convalesce six months ago, and we would like very much to see as many more join January 1. The admission fee is only \$1, and this covers the whole cost for the first term. Send a dollar bill to Treasurer Alumnus (Dr. J. S. Fessford), 1012 N. H. Ave., Washington, D. C., together with a letter expressing your wish to become a member of the League. In doing so, mention this paper, and we will send you one year free of charge; or we will send Mystery six months instead. Get in line and give the League a send-off for the New Year! 12-1-95. R. O. CHESTER.

New York has the greatest amount

of capital invested in farm implements and machinery, the sum total being \$46, 659,465; Pennsylvania is second, with \$39,046,855; Iowa is third, with \$36, 665,315.

THE PRIDE OF THE ADIRONDACKS.

The new Park Fence, 30 miles long. Big high, Buffalo spires, Fawn light, 10 rods between trees, roughest ground ever fenced, built by PAGE WOVEN WIRE FENCE CO., Adrian, Mich. When writing mention this paper.

WOVEN WIRE FENCE

Over 50 Styles. The best on Earth. Horse high, Bull stop, and all other styles. We can make from 40¢ to 14¢ to 22¢, a Rod. KITSILMAN BROS., Ridgeway, N. Y.

MAKE HENS LAY!

You can lay eggs in the early fall and winter when prices are very high. Its secret is in the use of our Green Bone Cutter. You can make from 40¢ to 14¢ to 22¢, a Rod. KITSILMAN BROS., Ridgeway, N. Y.

POULTRY, G. S. V. CLINTONVILLE, CT.

When writing mention this paper.

What a Lot of Eggs

the hens lay when fed on Green Bone! With a dozen hens.

Mann's GREEN BONE Cutter

will pay for itself in a short time in the increase of eggs. \$5.00 buys one. SENT ON TRIAL. 100 Highest Awards received. Catalogue free if you name this paper. F. W. MANN CO., MILFORD, MASS. When writing mention this paper.

\$100 IN CASH The POULTRY

TRIBUTE, a Monthly Magazine, will present a family illustration, and a bribe of information of value to all poultry raisers, will divide \$100.00 among its agents, besides paying his commission on the sale of a valuable prize each week. A chance for everyone. Samples and full particulars promptly mailed for six cents in stamps.

THE POULTRY TRIBUTE, Prospect, Ill.

Send for free sample copy.

"THE FEATHER."

A New National Poultry, Pigeon and Bird Magazine. PROFUSELY ILLUSTRATED. Box 34, Station A. WASHINGTON, D. C.

Established - - - 1819.

76TH YEAR.

THE AMERICAN FARMER.

"O fortunatus nimium sua i bona vorat agri-
cola."—VIRG.Published Monthly at Washington, D. C., and
Baltimore, Md., byThe American Farmer Company,
1729 New York Ave., WASHINGTON, D. C.SOUTHERN EDITION OFFICE:
228 East Baltimore Street, Baltimore, Md.Entered at the Postoffice at Washington, D.
C., and Baltimore, Md., as second-class matter.TERMS OF SUBSCRIPTION:
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tion wanted by the advertiser.When sending in subscriptions specify
whether for General or Southern Editions.
Unless specially directed for the Southern Edi-
tion, all subscriptions will be entered for the
General Edition.TO ALL TO WHOM THIS PAPER
SHALL COME.

Greeting: This paper is sent you that you may have an opportunity to see it and examine it, with a view to subscribing. We ask you to compare its contents, objects, and price with those of other papers, and see if you do not come to the conclusion that you ought to have it; that you cannot afford to do without it. We can assure you that if you send in your name for one year that you will find it one of the most profitable investments that you can make. We hope to make and keep it so interesting that you will think that every number more than repays you for the subscription price for a year. Please call your neighbor's attention to the paper.

EVERY other class makes a resolute struggle before Congress for legislation promoting their interests. The farmers must do the same. THE AMERICAN FARMER is the Marshal who leads the fight. Subscribe for it, and get your neighbors to do likewise.

SUPERSTITION has not yet succumbed anywhere to the march of education. The *North British Agriculturist*, a paper of the highest class, published at Edinburgh, has in a prominent place the following advertisement:

WATER—If you want a Water Supply, JOHN STEAKS, Westholme, Hesse, York, will show you where to sink; Drilling Rod used. Terms on application.

DURING the month of September the exports of worsted coatings from the Bradford Consular District, England, to the United States were valued at £172,484, or \$862,420, an increase over September last year of £138,619, or \$693,095; of stuff goods, £170,146, or \$850,730, an increase of £115,149, or \$575,745; and of woollen goods, £34,778, or \$273,990, an increase of £54,420, or \$272,100.

THE Pennsylvania Board of Agriculture reports that 100 years ago there were 29,446,400 acres of timber land in the State. This amount had been reduced by last year to less than 7,000,000, and of that amount not more than 1,000,000 acres are valuable. There is a dreadful destruction of valuable property each year from the forest fires. In 1891 more than 12,000 acres of land in this country were destroyed, representing a value of over \$25,000,000. At the present rate of destruction the entire 500,000,000 acres of forest land in the United States will have vanished at the end of 50 years.

THE London *Daily Financial News* puts the whole mismanagement of the Wilson-Gorman-Brice Deformed Tariff in one pregnant sentence. It says that "practically every penny that was subscribed here toward the recent American loan has been got back through the expansion in the exports of woollens and worsteds." That is, the farmers of the United States were robbed through the abolition of the duties on wool and other farm products; the revenue was cut down far below the expenditures, the Government had to borrow money to keep it going, the English lent us the money, and then "got every penny of it back" by the profits on the increased quantity of wools, woollen goods and worsteds they sold us. Is it any wonder that England becomes the richest country in the world, when she can get other countries to play into her hands like that?

THE AMERICAN FARMER is the only agricultural paper in the country that stands up boldly for giving the farming interest the same measure of protection accorded to every other interest in the country. If you believe in this, and believe in a paper that makes a steady fight for this idea, send in your subscription, and get your neighbors to subscribe.

WOOL OR BEER?

Every Republican Representative and Senator who has arrived in Washington so far has expressed himself unqualifiedly as to the urgent need of more revenue at once. Nearly all of them seem to have wool and beer nearest their minds as sources of this increased income. Substantially every one from Ohio to the westward expresses himself in favor of restoring the duties on wool as a measure of justice to the farmers, as well as one demanded by the depleted condition of the Treasury.

Into the consideration of this problem enter many bothersome questions. The first is the Senate. The Republicans will have at best only a majority of one or two in that body, with a greater probability of a tie vote, with the decision in the hands of a Democratic Vice-President. Then, the Democratic Steering Committee of the Senate has announced its determination to endeavor to restore the party prestige in the country by a prolonged debate of every measure that the Republicans may offer, which means a resumption of the old policy of the party of savage criticism of the opposition, without exposing itself to criticism by offering any alleged better plan. Next comes the President with his positive views on Protection and the almost certainty that he will veto any measure that is in the line of greater Protection. His veto will be fatal, for little as the Democratic Senators may like him, and much as they may want to see him over-ridden and humiliated, they will not for an instant think of helping to do this, for the benefit of the Republican party. It is too near the Presidential election for any such suicidal policy.

An additional dollar on each barrel of beer is the most promising plan of bringing quick returns into the Treasury.

All the machinery is ready for such a measure. There would hardly have to be another clerk appointed to carry it into effect. All that would be needed would be to direct the Internal Revenue Collectors to collect \$2 on each barrel of beer where now they collect \$1. Each keg would have a 50 cent stamp instead of the present 25 cent one. As there are 30,000,000 barrels of beer drunk in this country every year, this would give \$30,000,000 additional revenue, and the money would begin to flow into the Treasury from the day of the approval of the act.

This is very captivating, and it can be pointed out that while beer is now paying less than 20 per cent. of its cost as tax, whisky pays 1100 per cent.; that there is no business in the country so profitable as beer-brewing and beer-selling, and that the breweries are the property of English syndicates which drain the gold from the country.

But—and there comes a tremendously big BUT—the brewer-lords are potent political powers. They are the most compact political organization in the country. Every brewer-lord has from hundreds to thousands of saloon-keepers under his stalwart thumb. He has set them up in business, paid for their licenses, and furnished them with bar, furniture, and fixtures, upon which he holds a mortgage. The saloon-keeper is the creature of his will, and bound to do his bidding. In some of the cities there are as many saloons as one to 200 inhabitants. This means one to every 40 votes. When the brewers pass the word to the saloon-keepers to raise a howl against any legislation, the howl is tremendous. It is not to be supposed that the brewers will disgorge \$30,000,000 a year of their profits without bitter outcry and resistance, and the politicians of all parties will dread their swift, sure vengeance. The fact that the brewers cannot reimburse themselves by collecting the tax back from the consumers will add to their resentment. They must still continue to sell beer at five cents a glass and pay the additional dollar a barrel out of their profits.

As to the restoration of the duties on wool, there is to be expected a very strong and effective opposition from the woolen manufacturers, whom the Wilson Iniquity gave free wool, while largely retaining their protection upon the manufactured products. What politicians will fear still more is the noisy clamor of the demagogues, who will declaim from every stump and from every pile of beer kegs in front of a saloon upon the enormity of raising the cost of the "poor man's clothing, blankets, and carpets." They fear the revival of the old, cheap falsehood about "shoddy," and the exhibition of signs in the stores

of "Prices About to Be Advanced on Account of the McKinley Bill."

It is true that all this helped in overthrowing the Republican party in 1892, but the Republicans were themselves somewhat to blame for it. They seemed to rely so completely upon the justness of those duties that they made little effort to expose the sham of the cry against them. They did not make any concerted attempt to meet their assailants on their own ground, and point out the benefits the people, and especially the farmers, would receive from the Tariff schedule. The result was that they were badly beaten, not so much by the vote cast against them, which was smaller than usual, but by the vote cast for them, which was very much smaller than usual.

The farmers themselves were also to blame. Apparently, they could not make themselves believe that free wool would injure them, until the price of wool went down with a rush, and the stockyards at Chicago were glutted with sheep sold at any price that could be obtained. Other interests of vastly less importance took the alarm at once, and began beseeching Congress to save them. For example, we remember how effectually the collars and cuffs interest of one city alone battled for its interests.

It secured one Democratic Senator who refused to vote for the bill unless collars and cuffs were properly protected, and they were. Yet the more than 1,000,000 sheep-growers in the country, with interests valued at hundreds of millions of dollars, did not effect as much as the little squad of shirt-makers at Troy, N. Y. The tens of thousands of sheepmen in Texas put no pressure upon Senator Mills to prevent his connivance in their slaughter. The owners of the 4,000,000 sheep in Ohio did not make it clear to Senator Brice that they would hold him distinctly responsible unless free wool was defeated. Nor did the sheepmen of Kansas lay down this law to Senator Peffer; those of Nebraska to Senator Allen; nor those of South Dakota to Senator Kyle. These Senators would have saved the duty on wool if there had been anything like the pressure put upon them by their constituents that the Troy collars and cuffs men put upon Senator Murphy.

Now the urgent question is whether the wool men are going to rouse themselves to proper action in securing the restoration of the duties on wool. They can secure it if they will show themselves in dead earnest for it, and determined to hold to a severe accounting those who are hostile or non-helpful. All that is necessary for them is to be only partially as alert and aggressive in their own cause as other less important interests are. Let us have action by them without regard to politics, the same as other interests act. The Democratic tobacco-growers of Florida, Georgia and North Carolina demanded protection to their crop; the Democratic Legislature of Florida memorialized the Senators and Representatives from that State to vote for a duty on pine-apples; for years the South Carolina Democrats have been a unit in demanding a high duty on rice. Let us have every Democratic and every Populist farmer join with his Republican neighbor in demanding a restoration of the duties on wool as a revenue measure, with incidental protection.

The system of co-operation among farmers, which has been developing so successfully in Ireland, has spread into France, where it is taking new forms. Among other things, the "Union Sancerroise," one of these co-operative syndicates, proposes that when sickness or death overtakes one of its members, his work shall be carried on by the syndicate for the balance of the year, if the interference come before October, and during the whole of the next year if after October. This is an idea worth considering on this side of the Atlantic.

THE AMERICAN FARMER believes that every dollar of the \$300,000,000 of gold which is every year sent out of the country for agricultural products should be kept at home and spent among our own farmers. If you believe in this subscribe for the paper, and get your neighbors to do the same.

If you believe in rationally-protective duties on wool, barley, fruits, hay, vegetables, rice, cotton, sugar, eggs, potatoes, etc., and believe in making a stubborn fight until these are secured, subscribe for THE AMERICAN FARMER, and get your neighbors to do so.

A REMARKABLE POEM.

The following poem, which is just now attracting unusual attention, was written by Sarah Williams, an English woman, who died in 1867.

IS IT SO, O CHRIST IN HEAVEN,
"Thou hast many things to say unto me, but ye cannot bear them now."—John xvi, 12.
Is it so, O Christ in heaven, that the souls we loved so well
Must remain in pain eternal, must abide in endless hell?
And our love avail them nothing, even Thine
Aval not more?
Is there nothing that can reach them—nothing
bridges the chasm o'er?
"I have many things to tell you, but ye cannot bear them now."

Is it so, O Christ in heaven, that the Anti-christ
Still assuming shapes protean, dying but to live again,
Waging war on God Almighty, by destroying
feeble man,
Vell the heathen for a rear-guard, and the
learned for the van?
"I have many things to tell you, but ye cannot bear them now."

Is it so, O Christ in heaven, that the highest
souls are lost?
That the strongest wander farthest and most
hopelessly are lost?
And the anguish of the singer makes the sweet-
ness of the strain?
"I have many things to tell you, but ye cannot bear them now."

Is it so, O Christ in heaven, that whichever way
we go,
Walls of darkness must surround us, things we
would but cannot see,
That the infinite must bound us, as a temple
While the finite ever wears, so that none
attain content?
"I have many things to tell you, but ye cannot bear them now."

Is it so, O Christ in heaven, that the fulness yet
to come
Is so glorious and so perfect that to know
would strike us dumb?
That if only for a moment we could pierce
beyond the sky
With these poor, dim eyes of mortals we should
just find the end, and die?
"I have many things to tell you, but ye cannot bear them now."

THE CHEAPEST AND BEST.

At its present low price of 25 cents a year—clubs of five for \$1—the AMERICAN FARMER has no equal among the agricultural papers of the country for cheapness and excellence. Any one can readily determine this by comparing a copy of the paper with that of any other higher-priced paper he may have. THE AMERICAN FARMER is a thoroughly practical, every-day journal for the American farmer. It has no political affiliations, no personal axes to grind. Nobody connected with it holds office, or wants office of any kind. They only want to be connected with a paper which has the largest National circulation of any in the country, and which represents to the fullest extent every man and woman engaged in tilling the soil under the shadow of the Star Spangled Banner. It has many advantages for this over any other American paper; we want all the farmers who believe as we do in regard to the best way to develop their interests, who believe that all economic legislation should begin with careful consideration as to how it will affect farming interests, to join with us in helping build the paper up to its highest possible circulation. It should have 1,000,000 circulation, when it will become the most powerful agency for good that the farmers have. With its assistance they can secure everything that is right.

Let every farmer send in his subscription. What will be better, let him get four of his neighbors to join with him in sending \$1 for five subscriptions. They can all afford to pay 20 cents a year for so good a paper, no matter how many others they may take.

Send in your subscription at once.

A good idea was suggested at a recent meeting of Scotch farmers. It was for stockowners to contract with their veterinary adviser for his services at so much per annum. If this were done, the veterinary adviser would make periodical visits to the stock, and, with the view of keeping them in the best of health, he would make every suggestion that his skill could devise as to how to improve the hygienic conditions under which the stock was kept. He would advise as to the sanitary conditions of the buildings, the system of feeding to be followed, and any other matters on which his skill could suggest any improvements on the system previously followed. It would then be for his interest to have as few cases of sickness as possible in the stock, and in that way veterinary science would be used as much for the prevention as for the cure of animal maladies.

THE Pennsylvania Board of Agriculture says that the cash value of all farms in the State in 1880 was \$407,876,099; at the present date it is \$922,240,233; the highest total valuation was reached in 1870, when all the farms of the State aggregated \$1,043,481,582.

THE farmers can get the protection which is their right by making a determined fight for it. The best way to begin this is by subscribing for THE AMERICAN FARMER, and getting all your acquaintances to do the same.

VERY much more depends on the farmer himself than the section where he locates, the kind of ground he has, or the breeds of cattle on his farm.

NEW DEPARTURE.

Reduction in the Price
of The American
Farmer.

25 Cents a Year for the Best
Farming Paper in the
Country.

We have determined to meet the reduction in the price of all farming products by a corresponding reduction in the subscription price of THE AMERICAN FARMER. We do this, also, because we want the paper to have the widest possible circulation during the coming session of Congress, when there will be matters of deepest interest to all farmers under consideration, and it is very necessary that all of them should be carefully informed as to what is going on by a paper published at the National Capital.

Therefore, we have decided to make a reduction to the extraordinary low rate of

25 CENTS A YEAR,
CLUBS OF FIVE FOR \$1.

The paper will be kept fully up to its present size and standard of excellence, and every effort made to greatly improve it the coming year.

This will put THE AMERICAN FARMER within reach of everyone. No man can now make an excuse for not

having the monthly visits of the oldest agricultural paper in America, and one which is admitted by everybody to be one of the very best. He can get it now for the price of a bushel of corn or a half bushel of wheat or of three pounds of cotton.

Everybody ought to take it. No farmer can afford to be without it.

Send in subscriptions at once.

OUR CLUBBING LIST.

The American Farmer Will be Sent in Connection With Any Other Paper or Magazine.

We will send THE AMERICAN FARMER and any other paper or magazine in the country at a reduced rate for the two. The following is a partial list of the periodicals that we club with:

Name of Periodical.	Regular Price.	With the American Farmer.
Penny	\$1.00	\$1.00
Our Little Men and Women	20	20
Babyland	20	20
The National Tribune	1.00	1.10
American Gardener	1.00	1.10
Scientific American	3.00	3.00
American Switchboard	2.00	2.00
Cosmopolitan Magazine	1.50	1.50
Monthly Illustrator	2.00	2.00
Home Monthly	1.00	1.00
Inter-State Poultryman	2.00	2.00
Arms (including Art Premium)	5.00	5.00
Century	4.00	4.00
See-Ins's	3.00	3.00
Edinburgh Review	1.00	1.00
Atlantic	4.00	4.00
Fort	3.00	3.00
New England Magazine	3.00	3.00
St. Nicholas	3.00	3.00
North American Review	4.00	4.00
Review of Reviews	2.00	2.00
Magazine of Art	2.50	2.50
Quincy	3.00	3.00
Metropolitan	1.00	1.25
James Miller Monthly	1.00	1.00
Current Literature	3.00	3.00
American Amateur Photographic	2.00	2.00
Short Stories	2.50	2.50
Home	1.00	1.00
Demorest's	2.00	2.00
Chautauquan	2.00	2.00
Bellator and Metropolitan	1.00	1.00
Catalog	1.00	1.00
Scientific Budget	1.00	1.00
Domestic Monthly	1.00	1.00
Fanciers' Review	50	75
Frank Leslie's	1.00	1.10
Popular Monthly	3.00	3.00
For Boys and Girls	1.00	1.10
Cassell's Family Magazine	1.50	1.50
Waverley Magazine	4.00	4.00
Leisure Hours	1.00	1.00
Le Bon Ton	3.50	3.50
American Poultry	1.00	1.00
The Housekeeper	50	50
Little Ones and the Nursery	1.50	1.40
Modern Frisella	50	50
Sturges's	1.00	1.25
Peterson's Magazine	1.00	1.00
Arthur's Home Magazine	1.50	1.50
Oregonian Monthly	3.00	3.00
Practical Dairyman	50	75

Spiders' Eggs.

The eggs of spiders are laid in small balls or cocoons of a soft, cottony stuff composed of the same material of which their webs are made. The large number of spiders living in the fields is rarely noticed or suspected except when, early in the dewy morning, the webs become visible by the dew resting on the threads. Thus a field, especially when covered with grass, may very easily be largely covered with the cocoons or egg cases. Spiders are useful and wholly innoxious, so there is no reason why their eggs should be destroyed. As several kinds of birds and small animals feed on the eggs, not more than a very small proportion of them survive the risks they are exposed to. The eggs of grasshoppers are deposited in holes in the ground about one inch under the surface. The insect bores the holes, and thrusting the body into the hole as far as possible drops the eggs, and then makes more holes. Where these insects abound, deep fall plowing, by which the eggs are buried too deeply for hatching, is an excellent means of destroying them.

There is no question that lead and oil are the cheapest paint that can be put on. The so-called cheap paints will not stick—there is no chemical or physical reason why they should. The only exception to this are the tarry compounds from wastes of kerosene refineries and gas-houses.

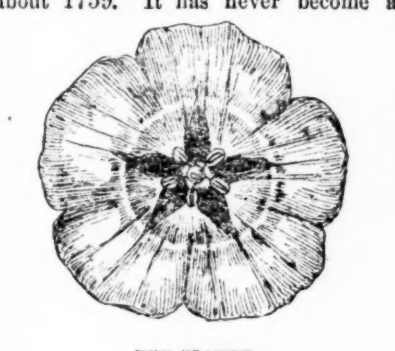
Apple of Peru.

A correspondent in Tennessee writes, submitting a plant for identification. It proves to be the Apple of Peru, a genus of *Solanaceae*, comprising only the one



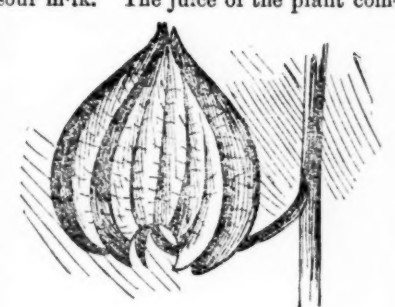
THE LEAF.

species, *Nicandra physaloides*, a stout annual plant about two feet in height, with smooth, deeply-lobed leaves, which was introduced into our Southern States as a weed, from South America about 1759. It has never become a



THE FLOWER.

serious pest in any locality, and in parts of Arkansas it is said to be used as a fly poison. The stems and leaves are crushed and placed in vessels containing sour milk. The juice of the plant com-



THE FRUIT.

bined with the sour milk acts as a poison on the flies that visit it. The plant was named after Nicander, who wrote on medicine and botany about 150 A. D.

Our Leaf Offer.

Those entitled to the prize books this month for the best list of leaves are Miss Zoe Moore, Brookville, Pa., and Miss Myrtle Benedict, Waupaca, Wis. These young ladies may look for their books at once. Our offer closes for the season with this issue.

A Dutiful Son.

"Father says that if I am a good boy he will take me to see the circus," said Johnny.

"That is what he told me," replied his mother.

"Well, you can keep your eye on me and see if I ain't the pride of the neighborhood. Father's done me a good many favors, he has, and I'd hate terribly to be the means of makin' him miss that show."

Statistics show that the entire results of the labor of the people for one day in every nine go to support the liquor traffic.

PERSONAL.

The McCormicks claim to have sold 10,000 of their corn-harvesters this year.

In response to a request from THE AMERICAN FARMER for a sketch of his life, Roland Morrill, the newly-elected President of the Michigan Horticultural Society, says: "I do not feel that it is worth writing, being only quite a common life among Michigan farmers. Starting with nothing, working steadily, with temperate habits, close attention to my own business, and non-interference with others, I have succeeded in getting into comfortable shape; but I can find young men in every neighborhood here who have done and are doing the same thing, so you see there is nothing phenomenal or sensational in it. So I cannot see why I should be given any notoriety or what I have done." With all respect to Mr. Morrill's opinion, we think that is just the kind of a career that should be written up. We have entirely too much in the papers of other kinds of lives.

Superintendent William R. Smith, of the Botanical Gardens, Washington, D. C., has been appointed Chief Judge of Horticulture and Pomology at the Atlanta Exposition. He was requested to name three assistants, and selected the following gentlemen to serve with him: P. J. Berkman, of Augusta, Ga.; Robert Craig, of Philadelphia, and Mr. Ellwanger, of the firm of Ellwanger & Barry, Rochester, N. Y.

The *Scientific American* says that Prof. Riley did not invent the kerosene emulsion, but that it was the work of Prof. Wm. S. Barnard, to whom the Commissioner of Patents granted letters-patent, and his claim was freely conceded by Prof. Riley.

COMPLIMENTS.

EDITOR AMERICAN FARMER: We are regular subscribers to your paper, and consider it the best paper of its kind we have ever seen.—ELMER GRAY, Kansas City, Mo.

I have been a reader of your paper for some time, and consider it one of the best we have.—MISS CORA B. COE, Leyden, N. Y.

Not Often Enough.

EDITOR AMERICAN FARMER: The November number received this a. m. Am glad to notice reduction, but would prefer every two weeks (or twice a month) at 50 cents. One sometimes forgets, taking a paper coming once a month. I am not a farmer, but take several such papers for their general reading matter besides on farming. Hope you will see it to your interest and your readers' to double price and two issues. It was cheap enough before, but once a month is too slow.—JAMES M. LYONS, Taunton, Mass.

NEW PUBLICATIONS.

AMERICAN CATHOLICS AND THE A. P. A. By Patrick Henry Winston. Published by Charles H. Kerr & Co., 175 Monroe street, Chicago. Price 25 cents.

A complete history of American Catholics in relation to the Government of the United States, and a review of the meaning, methods and men of the American Protective Association.

THE ILLINOIS STATE FAIR. Edited by Augustus H. Lippincott. Published by W. R. Hooper, Secretary. Published by Donohue & Hennessy, Chicago. Price 25 cents.

Every farmer, especially Illinois dairymen, should own a copy of this report. It contains, besides dairy statistics, discussions and valuable papers read at the Association meetings.

LIST OF BOOKS FOR GIRLS AND WOMEN AND THEIR CLUBS. Edited by Augusta H. Lippincott. Published by the Standard Book Bureau, 145 Franklin St., Boston, Mass. Price, cloth, \$1; paper, 50 cents.

A comprehensive catalog of books worthy to be read or studied by girls and women, containing also hints for the selection of books and women's clubs, including an outline of constitution and by-laws. This work will be found most useful in arranging a course of reading or study.

THE LADIES' STANDARD MAGAZINE. Published monthly by Wm. Jones, Rev. J. B. Jones, 342 West 14th St., New York. Price 30 cents.

THE STANDARD DELINEATOR. Published by the Standard Fashion Co., 342 West 14th St., New York. Price 25 cents.

JENNIS MILLER MONTHLY. Published at 114 Fifth Ave., New York. Price 10 cents.

Notes.

The *Youth's Companion* promises to surpass itself during the coming year. There is hardly a famous man or woman in Great Britain or the United States who has not been among its contributors. Among the story-writers for the year 1896 who will contribute to its columns are Frank R. Stockton, Harriet Prescott Spofford, Clark Russell, C. A. Stephens, Mrs. Euron Harrison, and Rudyard Kipling. It is, of course, primarily to be entertaining, but this does not detract from publishing remarkable contributions by such world-renowned men as the Lord Chief Justice of England, Judge Oliver Wendell Holmes, ex-Speaker T. B. Reed, Camille Flammarion, Gen. Nelson A. Miles, Sir Benjamin Ward Richardson, and the Dean of Salisbury. It is not unlikely that the *Companion* will also have another contribution from Mr. Gladstone, who has written on three occasions for it.

The Christmas number of *Frank Leslie's Popular Monthly* is already out, and will hardly be surpassed in richness and variety of pictorial illustration, or in seasonable variety of literary contents, by anything that may follow during the holiday season. The opening article, upon "Hermines and Hensene opening," affords a vehicle for nearly a score of exquisite reproductions from the old and modern master-painters. A similar opportunity is found in the intensely poetic story, by A. Cressy Morrison, of "The Man who Resembled Christ," in which, in addition, is illustrated with some original drawings of delicacy. In "The City of Dordrecht," George C. Haite fairly revels in the picturesque, giving us eight of his loveliest aquarels. The great literary feature of the number is Tolstoy's latest story, "Maiden Man," specially translated from the Russian for *Frank Leslie's Popular Monthly*, and illustrated by Fogarty.

"Memoirs of Gen. Thomas J. (Stone-wall) Jackson," by his widow, Mary Anna Jackson, and sketches of his life at West Point, in the field, and on the battlefield, by Gen. Gordon, Fitzhugh Lee, Wheeler, French, McLaws, Butler, Bradley, T. Johnson, Lane, Taliaferro, Dabney, H. Maury, Alexander, Mcowan, Beth, Basil Horn, Col. Jed Hotchkiss, ex-Gov. F. W. M. Holliday, Rev. Wm. Jones, Rev. J. B. Jones, Graham, Rev. Giles Cook, Major Hy. Kyd Douglas, Viscount (Gen.) Wolsley, Commander-in-Chief of the Armies of Great Britain, and others. The book will be a most interesting and fascinating one, in which the sunny side of Jackson's character is presented with most exquisite taste and delicacy. Publishers, the Courier-Journal Book Printing Co., Louisville, Ky.

James Whitcomb Riley has completed a new series of poems in which he



Comfort.
For the way in which weary,
And the heart is very sad,
There is a heavy burden-bearing,
When it seems that none are caring,
And we half forget that ever we were glad.

Comfort one another
With the hand-clasp close and tender,
With the sweetest love can render,
And the looks of friendly eyes,
Do not wait with grace unspoken,
While life's daily bread is broken—
Gentle speech is oft like manna from the skies.

Marjorie's Christmas Eve.
Marjorie sits by the window,
Dear little Marjorie White,
And she listens and listens,
For, oh, the bells tell wonderful tales to-night.

The stars peep in at the window;
The noisy old world is at rest,
While the busy tongues of the silver chimera
Are doing their very best.

And what do you think they are saying—
The wonderful Christmas bells?
With her heart in her eyes and a sweet surprise,
Dear Marjorie listens and tells:

"Think of the old and helpless;
Think of the poor and sad;
Then open your heart and open your hand,
And make the whole world glad."

"Don't bring me a thing, dear Santa,"
Sweet Marjorie says, with a sigh,
"I've a doll and a beautiful book—
Why, I believe I'm going to cry."

"But don't ever mind a bit, Santa,
You know I'm not very old;
Just go to the poor little children,
Mamma says some are hungry and cold."

"And, Santa, just give them my dinner,
I could eat bread and milk if I tried;
But, oh, if you could give them Santa,
Don't tell that I almost cried."

—Oliver Wood.

ABOUT WOMEN.

MRS. S. A. PALMER, WHOSE death at Cleveland, Ohio, has recently been announced, was in her youth the instructor of James A. Garfield. It was she who taught the future President the alphabet.

MRS. THOMAS LEATHERS IS the Captain of the Mississippi river steamer "Natchez," which runs between New Orleans and Vicksburg. The other officers of the steamer are also women.

THE YOUNG DUCHESS OF Marlborough carried to her English home a trousseau said to be a very simple one for a lady of such rank, but valued at over one hundred thousand dollars, not including the jewels.

MRS. U. S. GRANT HAS PURCHASED a residence in Washington, and intends making that city her future home. It is an English basement house, located on one of the fashionable residence streets, and has been occupied for the past two years by Secretary Olney.

MRS. CARRIE WILLIAMS, OF California, is an enthusiast on the subject of silk-worm culture. She claims that the climatic and vegetable conditions of San Diego are such that hatching need not be limited to once a year, but may be carried on continuously. She predicts that the profits from this resource may exceed those from lemons, oranges and raisins.

QUEEN VICTORIA'S CROWN IS composed of 27 sapphires, 11 emeralds, four rubies, 1,363 brilliants, 1,273 rose diamonds and 277 pearls. It is a very heavy and most uncomfortable affair, and the Queen has only worn it on sixteen different occasions during her long reign.

THE QUEEN OF MADAGASCAR is a Christian. She is also a victim of the tobacco habit, as she and all the ladies of her court chew tobacco the most of the time. The Madagascan ladies regard this as a great accomplishment, and the society buds are taught to chew tobacco with the same care that American girls are instructed in music or dancing.

CURLING FEATHERS.

The Restoration Process is a Simple One.

Ostrich feathers fresh from ostrich-land have to undergo many things before they become the dainty plumes so effective in the hands of the skillful milliner. Upon their arrival they are washed very carefully in warm soapsuds, patched and curled and combed and become things of beauty until caught out in the rain, when a rejuvenation becomes necessary, for nothing gives a hat a shabbier appearance than limp and uncurled ostrich feathers. The process of restoration is a very simple one, when one knows just how, and many pen-pals may be saved by doing it one's self.

Have a teakettle full of boiling water; shake the feathers vigorously through the escaping steam, taking care that it does not get too damp. This livens up the plume and restores its brilliancy if it has become dull and dusty. Next take a rather dull knife, a silver fruit knife is best, and, beginning with the feathers nearest the quill, take a small bunch between thumb and forefinger and draw gently over the blade of the knife until they curl as closely as desired. Follow this process up each side of the tip; then take a very coarse comb, comb out carefully, and your plume is as good as new. When ostrich feathers have been worn in a rain or on a damp day, if placed close to the fire, or in the heat of a register or radiator, they will often re-curl themselves, to a certain extent, while drying.

FASHION'S FANCIES.

GUIMPE BODICE.



This dressy guimpe bodice is suitable for home or evening wear. It is of black satin, with bretelles of open jet passementerie. The bodice is box-pleated at the front and back. The square neck is filled in with chiffon of any desired color. The full puffed sleeves fit closely below the elbow and are finished at the hand with a jet band. The bodice is confined at the waist by a soft belt of the satin with a bow and long ends of ribbon at the back. A flaring bow adorns the back of the collar.

CLOTH COSTUME.



Among the newest gowns the front panel is again often seen. The illustration shows a stylish costume of myrtle-green broadcloth. The back is in Princess shape and the vest and panel are of velvet of a darker shade of the myrtle-green, heavily embroidered in silk. The plain velvet revers are edged with tiny ruffles of soft silk. The sleeves are full puffs above the elbow, tight fitting below and finished with a pointed cuff of velvet. A half girdle is formed by two pointed bands of the velvet, each finished with a large smoked-pearl button. With this costume is worn a large hat of myrtle-green velvet, adorned with many ostrich plumes.

All Sorts.

Fancy velvets, velours and velveteens are prominent among the Winter dress-goods.

When first taken from the mines, opals are so tender that they can be picked to pieces with the finger nails.

The King of Siam has a body-guard of 400 warriors selected from the strongest and handsomest women in the land. Fur of all kinds, either as whole garments or as bands for trimming, will be worn this Winter more than ever before.

Although the brain of a woman is smaller than that of a man, it is said to be somewhat larger in proportion to the weight of the body.

The snug turban and English walking hat are favorite styles for Winter headgear, but should never be chosen by one with a full face.

Salt water is said to be a good tonic for the hair. Use a teaspoonful of salt to a half pint of water, rubbing it on the scalp with a soft cloth.

Long coats for traveling or bad weather wear are made with deep rippling capes and usually pointed hoods are attached in addition.

The greatest misery that could be inflicted on a girl of 20 would be to compel her to marry a man who was her ideal when she was 16.

Cornflower blue—that is, a deep blue almost ultramarine—is much used in the trimmings of Winter hats and bonnets. It is said to be especially becoming to brunets.

The latest bloomers for wear under the bicycle skirt are of black satin. They are smooth and do not cling to the inside of the heavy cloth skirt, which is seldom lined.

A young woman bicyclist often seen in Central Park, New York, is attended by a trim young negro, also a wheel, and following at a respectful distance, attired in white cap and apron.

Lace was never so cheap nor shown in greater variety. The Vandye pattern is the favorite among the heavy laces; the points must lay flat, so it is never fulled, and therefore it goes further than any other design.

A COUGH, COLD OR SORE THROAT requires immediate attention. "Brown's Bronchial Troches" will invariably give relief. 25c a box.

WOMAN'S WISDOM.

Sensible Gifts.

There are many things that the busy housewife will appreciate at Christmas, or other gift time. Among these you may class hemstitched sheets. How many women just lap the edges of muslin together and seam it up into sheets, with a machine stitched hem. They are so hurried they do not have time to do otherwise, but they do like nice things, and a pair of good hemstitched sheets, even if they are not real linen, will be very much appreciated. Turn a hem, say, three inches on one end and four on the other, and after drawing four threads, hemstitch neatly. Make monogram initial upon the end where the four-inch hem is found. For this initial you may use Asiatic flosses, Roman floss, or a good linen floss. Let the work be well done, and there are few housewives who would not be pleased with this gift. Some pillow slips, too, will be a nice thing to give to the busy woman, providing you know just the right size to make them. Allow a four-inch hem; let this be hemstitched, and then above this draw threads and make a border of the beautiful Mexican drawn work, with Asiatic flosses, in solid work, or simply outlined with Asiatic etching silk or the twisted embroidery.

Towels also make good gifts, providing they are not too elaborate. A half dozen huckaback towels neatly hemstitched, with an initial or monogram embroidered upon them, will be very nice. —ROSE SEELYE-MILLER.

One Woman's Opinion.

EDITOR AMERICAN FARMER: I see you ask women's opinion about wearing bloomers on all occasions. For myself and several others I say no. No modest Christian woman would wear wearing the horrid things on the street.

I believe in woman's independence to a certain extent, and in her suffrage to the full extent. I think she can vote with considerable advantage to herself and country, and even ride a wheel, but without a skirt. Now, the trouble with the young American woman generally is, she will follow the fashion without any individual thought of the fitness of things. A wheel is a good thing for a woman who wishes to attend to her own affairs, as railroad travel is expensive, and a horse requires care she may not be able to give it, or to understand its management. Now, my opinion is the fadist will never die to the American farmers, wives what mode of dress they wear their own good sense will keep them as modest and industrious as their mothers and grandmothers were before them, and if more of our American women would pray, like Solomon, for wisdom and take the modest *Exquisite*, there would be many, many more happy homes in this broad and prosperous land. —MRS. CHARLOTTE FITZGERALD, Huntington, W. Va.

[This is an honest, womanly letter, but we think our correspondent has missed our point. We suggest bloomers for farmers' wives not for "all occasions" but for a work-dress. We hope to hear from other bright, wide-awake women on this subject, surely an important one to all women. —EDITOR AMERICAN FARMER.]

For the Bloomer.

EDITOR AMERICAN FARMER: We feel very much like shaking hands over the bloomer question, and I am glad I can have the privilege of speaking my mind on this—some very important question. The woman-kind of the world should feel deeply indebted to the bicycle for the revolution it is working in woman's dress, and she who is wise will not be long in availing herself of the opportunity of wearing a dress that is superior to the long, heavy skirts both in comfort and health. What woman that has done housework on a farm for 25 years, raising a family of from five to 10 children, having to go up stairs and down cellar six or eight times a day, constantly stepping on her skirts in the first and last of the year, and in the mud and water in the second, has not in her heart wished it was the fashion to wear bloomers? But would a farmer's wife dare to set the example, and, if she did, what would be the result? Well, we are content. The "cane" is worn to Susan B. Anthony, that grand reformer, for your answer. But in the 19th century comes the "cane," and Dame Fashion smiles upon it and says, "It is good," and Mr. Farmer's wife can quickly follow her lead. Well, we are content. The "cane" is worn, as we believe, to stay, and the short dress, or the "bloomer" will be a god-send to many a poor woman, worn and weary after the years of backache brought on by long and heavy skirts. The farmer's wife may never be the happy possessor of a wheel, but she will ever have a deep respect, nay, a reverence, for it, in that it gave her permission to wear a dress that did not kill her to wear it.

As to the men objecting, why, we might expect that. Haven't they been telling us all these years we were the brightest, best, handsomest, and (to them) dearest beings on earth, and at the same time been saying, "Why, my dear, if you would only ride a wheel, there would be no need of a new hat three times a year, or a dress being made over every few months; and, then, think of the saving there would be when the bills come in." The wife has pondered this in her mind many years, and finally has decided he is right, and with her to be convinced she is wrong is to act at once, and she does the bloomer, when, "Presto, change!" the husband is astounded; declares he "will not have it," "his wife shall never be seen in such a dress." No, indeed, he will "none of it," and we are induced to smile and remark, "Consistency, thou art a jewel." —FARMER'S WIFE, South Dakota.

A Dakota Literary Club.

To a resident of the luxurious East, a letter from far-away Dakota will come like a breath from the North pole, so remote, so very much "out of the world" do the citizens of that favored land regard those who have made the great West their abiding place. True, where now may be seen waving fields of golden grain, and the shriek of the locomotive is often heard, but a few short years ago all was dreary desolation. For miles around the billowy prairie until the little "shack" erected by some sturdy pioneer seemed like a tiny boat afloat upon an endless sea. Strong arms and brave hearts have caused this wild waste to "blossom as a rose." Our advantages are few, but we are doing all that within us lies, and make the most of our opportunities.

In this little city lying in the picturesque valley of the Sheyenne we have organized a Woman's Literary Club, membership limited to 30. Any member failing in the part assigned her without a reasonable excuse, forfeits her membership. Here are discussed our most noted authors, current events, matters relating to the household, etc. Politics and religion are debated, being considered especially undesirable for discussion. Roll call responded to by quotations, with the aid of authors given. Many of us are farmers' wives, for there are but few husbands and fathers among us who are not possessors of at least 160 acres of Dakota soil, although in these times of starvation prices for our grain, it sometimes becomes necessary to seek other employment to keep the "wolf from the door." Many farmers whose circumstances will admit, move into the nearest town for the Winter, that their families may have the

benefit of our excellent school system; while upon the prairie many children are unable, on account of the extreme cold and the distance to be traversed, to attend the County schools.

About one year ago the St. Paul *Globe*, one of the largest daily papers in the North-west, offered a prize of \$25 for the best article on "How to keep a man in line." Answers poured in from many sources, some regarding the matter merely as a joke, others in a serious vein, each reply conveying some idea of the writer; as, for instance, one letter savored so strongly of spinsterhood that one could almost see the vinegar visage and cork-screw hair of its perpetrator. Another, whose matrimonial experience had been brief, and who could not even imagine dear Adolphus out of "line," still, was willing to give her ideas on the subject for the benefit of her less-fortunate sisters. This was followed by one whose husband was a perpetual stranger, to keep her wayward partner in the straight and narrow path. The advice given on this all-important topic, however, was much the same, and something in this wise: Always be a smile. Be content with your possessions. Dress daintily, and if some pretty gown was admired by the lover, wear it for the husband. (I could not forbear a smile at the thought of the expression which would steal over my husband's face, should I appear before him in a sequined prerogative and a lustrous gown, worn in the far-away and never-to-be-forgotten halcyon days of courtship. In short, be a womanly woman. The *Globe* then comes forward with the query: "Will some of our readers kindly tell us what it is to be a womanly woman?" Evidently the writers had exhausted their ideas on the first subject, or were unable to cope with the latter, as the responses were somewhat meager, leaving us in doubt as to the attributes of womanliness. So, I have decided to "womanly" it. It is not womanly to fulfil one's destiny with the best possible grace, be it as maiden, wife or mother? Am I not a womanly woman because I do not on my prettiest dress and daintiest boots on wash-day to greet my husband? Is she not a womanly woman, who sometimes forgets the smile, which must be stereotyped if always worn, or, loving the good things of life, if I experience an envious pang when my more fortunate neighbor becomes the possessor of a new dress? Is she not a womanly woman, who shares all her sorrows; to whom no sacrifice is too great for one she loves; of whom may truthfully be spoken these beautiful lines when burdens are laid down, "She hath done what she could"? —WISCONSIN.



The old story of Prometheus is a parable, an allegory. Prometheus was on terms of intimacy with the gods. From them he stole fire, and gave it to men. For this sin he was bound to the rocks of Mount Caucasus, and vultures were set upon him. They only ate his liver. This grew again as fast as it was pecked away. Are his sufferings to be imagined? Yes, and realized. Take a modern interpretation of the parable. There is no cooking without fire. In cooking and eating the mischief lies. The stomach is overtasked; the bowels become clogged; they cannot dispose of the food that is given them. The impurities back up on the liver. Then come the vultures. The sufferings from an outside, visible hurt are a mere pin-scratch to the tortments of a diseased liver. But, moderns are ahead of the ancients. There is a sequel to the old story. Dr. Pierce is the author. His "Golden Medical Discovery" is more than equal to the vultures of dyspepsia and its kindred diseases. Every atom of the "Discovery" is an active agent against disease. It flies like a ferret, wherever it is sent. It is as sure as the needle of the compass. There is no more need of suffering from dyspepsia than there is of hanging one's self. Mr. W. Rousas, of Grayson St., Louisville, Ky., has this to say for himself and the "Golden Medical Discovery": "I was a dyspeptic for many years. I have taken three bottles of Dr. Pierce's Golden Medical Discovery. I am now sixty years old. I feel thirty years younger." Yours truly, Willie Rogers.

Send 4 cents in one-cent stamps to Dr. R. V. Pierce, Buffalo, N. Y., and get Dr. Pierce's Medical Adviser. It is a book of 100 pages, profusely illustrated. It will give you complete knowledge of the human system in plain words.

HOME TABLE.

CHRISTMAS PLUM PUDDING.

One and one-half cups suet, chopped very fine; one-half cup milk; one-half cup sugar; one-half cup molasses; one-half teaspoon salt; one-half teaspoon cinnamon; one-half teaspoon cloves; one-half teaspoon allspice; one-half teaspoon soda; two cups raisins; two eggs; flour to make a stiff batter.

Bake two hours, and serve with hard sauce. Or it may be boiled. Tie in a cloth, leaving room to swell, and drop into boiling water; boil two hours.—MRS. S. E. MISSOURI.

PORK FRUIT CAKE.

One pound pork chopped fine; one-half pint boiling water; one cup molasses; two cups sugar; seven cups flour; one pound chopped raisins; two teaspoons saleratus; nutmeg, cinnamon, and cloves to taste. This makes two loaves.

COFFEE CAKE.

One cup sugar; one cup molasses; one cup very strong coffee; two-thirds cup butter; three cups flour; one pound raisins, or less; one pound currants, if you choose, a little citron; one teaspoon each of cinnamon and cloves; one teaspoon soda. Rub butter and sugar to a cream, dissolve soda in the coffee. This cake is very nice without the currants or citron.—MRS. H. PRASE, N. Y.

POTATO CROQUETTES WITH MEAT.

Two tea-cups finely chopped cold meat; one cup cold mashed potato; one beaten egg; a little salt and pepper; mix well and make into balls, roll in flour and fry in butter. Any kind of meat may be used, but chicken or veal is best.

POTATO CROQUETTES WITH BREAD.

One pint cold boiled potato cubes; one-half pint dried bread crumbs; season and wet with three well-beaten eggs. Have the frying pan ready with three or four tablespoons butter or drippings heated to bubbling; into this drop the mixture by the spoonful and brown nicely.

POTATO FRITTERS.

One-half pint milk, two eggs, and a pinch of salt; stir in cold mashed potatoes enough to make a stiff batter and fry in boiling lard.

POTATO OMELET.

One-half pint of boiled and diced or mashed potatoes; three eggs; half a cup of milk; salt; pour into a buttered pan, fry, fold and serve the same as any other omelet.—C. D.

CHRISTMAS CANDIES.

Purity Assured by Making Them at Home. [Selected.]

BROWN-SUGAR CANDY.

Two cups granulated sugar, one cup water and one-half cup strong vinegar. Boil half an hour; turn into a buttered dish, and when cool pull until very light colored.

POPCORN BALLS.

Pop the corn, salt it and keep it warm; with a whiskbroom sprinkle over it a mixture of one ounce of gum arabic and one-half pound of sugar dissolved in a pint of water; this mixture should boil a few minutes, then let get cold. Form into balls with the hands.

CHOCOLATE CARAMELS.

One pint of sugar, one pint of New Orleans molasses, one-fourth pound butter, one-fourth pound grated chocolate, one-half cup sweet cream. Try often by dropping a little in cold water; when about done add a teaspoon vanilla. Pour about one-fourth inch thick, on greased tins, and when nearly cool mark in squares.

BUTTERSCOTCH.

One cup white sugar, one cup table molasses, one tablespoon black molasses, one teaspoon vinegar; flavor with vanilla or lemon. Run into greased pans very thin.

CANDY NUTS.

Boil three cups of granulated sugar and one cup of water until it hardens

when dropped into water, then flavor with lemon. It must not boil after the lemon is put in. Put a nut on the end of a fine knitting needle, dip it in the candy, then take it out and turn on the needle until it is cool. Malaga grapes and oranges quartered may be candied in the same way.

PLAIN TAFFY.

Three cups granulated sugar, two-thirds of a cup water, and one-third teaspoon of cream-tartar. Boil all together without stirring; when half done add a teaspoon butter. When it will snap, it is done and must then be poured out on a buttered plate to cool. Be careful not to cook too much. Pull until smooth and white; while pulling flavor with peppermint or vanilla.

MARSHMALLOWS.

Dissolve one-half pound of white gum arabic in one pint of warm water, strain and add one-half pound pulverized sugar. Place over the fire, stirring constantly until the sirup is the consistency of honey. Add gradually the whites of four eggs well beaten; stir the mixture until it becomes somewhat thin and does not adhere to the fingers; pour into a tin slightly dusted with cornstarch, and when cool divide into squares.

COCONUT STICKS.

Grate up fine the meat of two coconuts, put in a kettle with four pounds of pulverized sugar, the beaten whites of two eggs and the milk contained in both nuts. Stir together over the fire until you discern an appearance of the candy turning back to sugar. Take off immediately. Make into round, flat cakes and put on buttered dishes to harden. If you want part of it pink, stir in the least bit of pokeberry juice after you remove the candy from the fire.

STITCHES.

DARNED NET CURTAINS.

Window drapery, either full or sash length, is very dainty made of net with a simple pattern darned in stripes, using a delicate tinted flax thread, pink, blue or yellow. The edge should be finished with a chain or button-hole stitch, and tiny tassels of the flax thread fastened at intervals. This makes a very effective drapery.

A PRETTY TIDY.

First procure some balls of tidy cotton, number 14, and a wooden frame about 20 inches square, (or any size you wish), with an inch spring (braid) driven half down in the center of each corner, and similar ones along the sides in line with these, an inch apart, or closer. Fasten your cotton to the second side directly opposite, passing around each spring 10 or 12 times, then draw the thread to the next spring and weave in same manner. Continue in this manner until the springs are all filled. Now cross these threads in the same way from the other two sides, and if you want it very heavy, then cross with the same number of threads diagonally in both directions. You will now have two or four warps on your frame, each in different directions. With a needle and tidy cotton securely fasten at every place where the sets of threads intersect, drawing the cotton from one to another. Cut the cotton at every spring, and it is finished except trimming the fringe. Or, if you want fluffy little balls, cut the cotton at every place where it crosses, cut in the middle of each, except one or two threads, being careful not to cut the one that you tie with. Make it still prettier, before you commence to tie, weave in two or three threads of red worsted or yarn that will not fade. Threads from the red table linen will answer the purpose and looks real pretty; and is so cheap, too. Then steam it well.

A HOME-MADE HASSOCK.

Necessity is truly the mother of invention. If one hasn't the money to buy what one wants one must think up how to make it of stock on hand. Hassocks, or foot-stools, are convenient for many purposes. Let me tell you how easily you can make one. Take seven tin fruit-cans, put one in the middle, and the other six around it; draw around this a band of unbleached muslin and fasten firmly; set them on a piece of paper and cut a pattern of the bottom, of post-board, cover this with paper muslin, as it slips better than anything else; then cut out a similar-shaped piece for the top, from cloth, or whatever material you use, also a band to tie the sides. Cord the top piece around it, and sew on the band; stuff the cans with hay or

excelsior, and let it be good and thick on top of the cans also, as it will pack in a little while; draw your worked pieces, or cloth, over it, and sew firmly to the bottom, and you have your hassock to use on the porch in Summer, or as a footstool before the fire. It is strong as well as very light, and can be moved easily with the foot.—M. L. Gessie, Ind.

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32. 336x360 ft. \$24.00
33. 360x384 ft. \$25.00
34. 384x408 ft. \$26.00
35. 408x432 ft. \$27.00
36. 432x456 ft. \$28.00
37. 456x480 ft. \$29.00
38. 480x504 ft. \$30.00
39. 504x528 ft. \$31.00
40. 528x552 ft. \$32.00
41. 552x576 ft. \$33.00
42. 576x600 ft. \$34.00
43. 600x624 ft. \$35.00
44. 624x648 ft. \$36.00
45. 648x672 ft. \$37.00
46. 672x696 ft. \$38.00
47. 696x720 ft. \$39.00
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HER CELESTIAL ADORER.

A Loving Heart under His Six Quilted Coats.

BY L. HERVEAU.

"If we measure the hearts of others by our own, we shall not find them different."—Chinese proverb.

She was little, prim, and pious. She was also distractingly pretty.

Three of these qualities are an unusual combination. Therefore worthy of note.

She came up to New York to study bookkeeping and shorthand. Her name was Alice Pearson, and she had a mania for converting people.

The house at which she boarded was kept by a stout Irish-American woman—Mrs. Brown. She looked the essence of good nature, but she let the boarders freeze all the winter by never having a fire in the furnace, and she fed them with pork and beans until life became a burden. She had a daughter, Mattie, tall, rather well-favored, though running to bone, who was much in love with a man whom I may term the "head-boarder." That is, a person who, having a magnificent constitution, had been able to stand the ravages of Mrs. Brown's pork and beans the longest. He was a medical student, and his name was Caldwell. He was very good looking, by the bye.

There were 16 boarders in Mrs. Brown's establishment the first night Miss Pearson came down to dinner. Two weeks afterwards there were 21, and within a month, Mrs. Brown's limit—30—had been reached. The new comers it was noticed were all men; and curiously enough men who, in the rush of New York business life, had time to worry about their souls. The fact was, that before the lovely Miss Pearson had been in the house five weeks, she had nearly ruined the surrounding boarding-houses, and had turned Mrs. Brown's erstwhile peacefully wicked establishment into three opposing revival meetings rolled into one and let loose.

She was so pretty and she was so pious, and the most fascinating thing about her was that, while she really was so good, she did not look it. Her mouse-colored hair broke into the wick-ed little curls over her smooth, round brow, and little sinful tendrils crept down her white neck to the most seductive manner. Just underneath her smiling brown left eye there was a distinct though minute dent in the soft pink cheek—in short, probably the most worldly duple that ever strayed away from that portion of the face usually allotted to dimples, and quite spoiled a prim little maiden's would-be severe expression.

Devastation followed in her wake, but she herself was not to blame. She simply walked serenely and demurely into the eyes of whatever young man she chanced to meet, and from the eyes by a short and easy route to his heart. So it went through the house, and even outside of it.

Fah Chung, laundryman, late of Peking, subsequently of San Francisco, then of the Bowery, New York, fell as madly and jealously in love with her as if he had been a Christian.

Miss Pearson affected demure little gray frocks with a wide Eton collar and cuffs of white, and Fah Chung—oh, bliss—Fah Chung washed and ironed them for her.

It has been remarked that Miss Pearson had a mania for converting people, which means that she conscientiously harried persons whose religious views differed from her own until the hereafter was not a circumstance to it. Now, it is to be noted that when people talk very little thinking of our "brothers." The statement is explained thus: Miss Pearson, like most conscientious Americans, regarded people of a different color—say, Fah Chung, or Millie, Mrs. Brown's negro waitress—as speaking brethren with souls to save. But Millie as a sister woman never entered into her mind, any more than did Fah Chung as a real human brother. That those queer slanting eyes of his could see as the eyes of other men saw, or that the heart under those six quilted coats could love and hate and ache, as it was possible the heart under Caldwell's tweed loved, hated, and ached—was a fact beyond her fancying. Yet she felt that she had a duty towards them both, and accordingly began her investigations concerning the state of their souls.

She tried her hand on Millie first, but Mrs. Brown made strong objections to having her servants demoralized by Miss Pearson's religious notions, so that energetic laborer in the vineyard turned her attention to Fah Chung.

"How do you do, Mr. Chung?" she greeted him with one morning when he came for the laundry work.

"Ni cha," replied the Celestial.

Miss Pearson stared.

"I guess he means 'Howdy,' Miss Pearson," struck in Millie, who was sweeping the room.

"Oh! Ni cha, Mr. Sing."

The Chinaman did not change a facial muscle. He did not want to look sad, and he could not grin any harder than he was already doing. The left side of the six padded coats gave a great beat outward.

That was getting on.

The loved one could now converse as fluently in his native tongue as he in hers.

That was getting on.

The next time he came he brought one of those little reeds with a bunch of hair fastened in one end, which the Chinese use for pens, and presented it, with his immovable grin. That gentle smile of his was so fixedly white, that Caldwell declared the top of his head to be an island surrounded by moor.

A somewhat exaggerated metaphor.

Still, it was what one might call a generous smile.

The following week he laid on her a package of Chinese fire-crackers, and had learned to count up to five in English. She had eight articles in the washing, but he began over again at "one" when he reached the place where "six" ought to be, so that was all right.

Miss Pearson never got beyond "Ni cha" in her study of the Chinese tongue, but Fah Chung applied himself with ardor to the mastery of English, and went about his laundry practicing—"One collic, one collic, two cuff, two cuff, one collic, two cuff." When he got so that he could say, "Allee lightee washee soon, done Slatteday," Miss Pearson thought it time to begin her spiritual ministrations. Accordingly, she took him down to the boarding-



SHE KNELT BY THE SOFA AND PRAYED.

house drawing-room one Saturday, sat him on a stiff horsehair chair just where he got the drafts, between the fireless grate and the door, beautifully, and dis-couraged to him.

She told the Chinaman that he was a worm fit only for the burning. She dove into the depths of Original Sin, and enlarged on the lake of burning fire and its connection with heathen—Chinamen in particular. Her Celestial catechumen grinned serenely. She grew eloquent over the Scriptural authority for deep-water baptism (she herself was a Deep-Water Baptist), and she propounded in moving terms the beauties of the doctrine of infant damnation. Fah Chung's little nose got purple and his little bare ankles showed a fine blue over the neat white shoes, but the heart under the six quilted coats was very warm.

For exactly one hour and thirty-two minutes did the lovely Miss Pearson catechize that unfortunate Oriental, at the end of which time she knelt by the sofa and sent up a prayer that his darkened mind might be enlightened and made to perceive the truth of her words.

The girl was sincerely in earnest, and it was something of a shock when, on rising from her knees, he turned towards her that unchangeable smile, and affably remarked:

"Me likee Melican gal."

Fah Chung slept in a tiny box of a room at the back of his laundry. Presently he took to bunking on his ironing-table and let the box to a lodger. Fah Chung seemed to desire a larger income. The fever of the New York world had seized him. He longed to amass riches.

With all her primness, and in spite of her knowledge that everything not absolutely slow must of necessity be sinful, Miss Pearson was of a somewhat adventurous nature. The great town, to her country mind, was full of wonders; and leading, as a woman, even a young and very pretty woman, can, if she choose, in New York, as independent a life as if she were her own brother, she indulged her passion for exploring frequently. Her studies usually occupied the day, but on those evenings when she was not engaged in setting the boarding-house by the ears by catechizing one or another fortunate young masculine sinner, she donned a little gray bonnet and cloak, and wandered out into the bewitching, brilliant night world.

She was not sure just why, but she found that she felt a little uncomfortable in walking by herself up Broadway, Fifth Avenue, or Madison Square in the evening; but the good-natured crowds in less fashionable parts of the town never annoyed or frightened her.

What more blissful than to walk down Sixth Avenue, with its cheap restaurants filled with noisy, merry people; to gaze enraptured at the spirited life-sized lion, which one enterprising *délicatessen* shop-owner had carved out of solid lard, and placed in his window to attract attention. And, after a stroll part way down the avenue, it was very pleasant to cut through into dark, deserted Thompson Street and wander about a little before taking Broad Street or one of the other turnings leading into the upper part of the Bowery.

It was a long time before any one at the boarding-house dreamed that she had gone anywhere except perhaps to chapel or to do a bit of shopping, and then it was Caldwell who found it out. He—good fellow that he was—simply followed at a distance and kept guard.

Now it chanced that a certain pair of narrow slanting black eyes had been keener even than Caldwell's big round brown ones. Their owner periled his "washee-up shop's" reputation for promptness by lingering about the boarding-house every night for an hour after dinner, to learn what his divinity's movements were to be. If she went exploring, so did Fah Chung, and kept an eye on her. It grew more complicated when Caldwell took to shadowing her too. That gentleman never noticed the Chinaman, but Fah Chung did not grin so hard when he looked at Mr. Caldwell, particularly after he had seen Miss Pearson fasten a rose in his buttonhole.

After Miss Pearson had spent five hours and a half on different Saturdays in explaining doctrine to Fah Chung,

she came to the conclusion that she was giving him spiritual truths in too large doses. The one word "Christian" really contained all she was trying to teach him; so she gave up lecturing, and contented herself with saying over and over again in a very loud tone:

"Christian, Christian, Mr. Chung—Christian."

He took it that she was teaching him the English for some article in the washing, but he could not hit upon just what one. He would lift a collar and say, "Clistian?" and she would shake her head. Then a cuff, a necktie, an apron. No? Ah! he had it. "Clistian" was evidently the name for the washing collectively. No? Fah Chung pondered deeply. At last he got it.

What! Cut off his pigtail, wear a spotted necktie, a stiff hat, and eat pork? It was a struggle.

He did it, though.

He walked into Miss Pearson's room one day, set down his basket of clothes, and horrified that virgin by remarking: "Me Clistian now, hellee damme. Eat piggee—damme hellee."

With civilized garb he had adopted civilized language.

There are some things that change not, neither in America nor in China, and the heart of the lover is one. Fah Chung might take the Fourth of July, with fire-crackers and illuminations, to be a kind of American "Feast of the Lanterns"—a great religious festival, in fact. There he mistook. *Decidedly*.

But Fah Chung was right when he guessed that the object of his passion regarded him no more in the light of a lover than she would some old woman who chose to wear a pigtail and unusual shoes.

He made no mistake either in his interpretation of her difference of manner towards him and the—to him—strange people among whom she lived.

Humanity to her meant Americans, those Englishmen who did not drop their r's or use soft a's, and possibly Germans or Frenchmen—if they bought their dress suits ready made and wore bad neckties.

They were all Christians; therefore Fah Chung, as we have seen, became a Christian too.

The change in dress shadowed upon Miss Pearson's mind the fact that her laundryman was a man, and her manner towards him became somewhat reserved. That was good for a beginning. He wrote her a letter—he took it for a laundry list, by the bye—in his native tongue, of course—in which he declared his passion. He knew she could not read it, but it was an outlet for his feelings. He got his Irish lodger to address the envelope. As it stood, she could read the outside and he the inside, so that made it even.

From the translation it would appear that he was not half bad as a lover. It ran thus:

"O beautiful lady, the sun in the heavens is not so bright as your smile; the fur of the mouse is not so soft as your soft hair; whiter than rice are your distinguished teeth. Each hour my stupidity dies until you bestow on my unworthiness your adorable heart. Marry me. We will go to China, where you shall sit forever in the sun and eat stewed rice with golden chopsticks until the full moon is not so round as your face. Oh lady, as beautiful as the moon."



FAH CHUNG.

It was rather a pity that Fah Chung could not have learned a little more of the customs of his adopted country earlier. The knowledge might have saved him from making two great mistakes. The first lay in the fact that he had not curtailed his laundry window.

Strolling down the Bowery one bright afternoon and enjoying to the full the rush and roar of life in that Broadway of the lower-class "Gothamites," Miss Pearson was amusing herself by counting the different nationalities represented in the shops, and so on. At the last corner she came upon Fah Chung's laundry. She stopped at the window to admire the scrupulous cleanliness and to watch it owner at work.

Now the ways of American laundrywomen are not as the ways of Chinese laundrymen.

The former sprinkles the rough-dried clothes by dipping her hand into a basin of water and flinging the drops from her finger-tips. Then she rolls the garment up tightly and lays it away for an hour or two to absorb the moisture evenly.

Not so the Chinaman. He fills his mouth with water and deftly ejects a tiny spray over the garment in hand at the same time he is ironing it.

Fah Chung lovingly pulling out the dainty ruffles of a little white apron with his slender yellow fingers, and ironing with ardor, was probably never so thunderstruck in all his life, as when it was snatched from his hands, and a lovely little face as red as a rose with anger and disgust, disclosed to him Miss Pearson's indignant brown eyes. The rest of her things lay on a shelf near, and scolding as fast as her tongue could wag, she gathered up, thrust them into a piece of paper, threw a half dollar upon the table, and marched away, the amazed Chung in the meantime standing in helpless bewilderment, his cheeks puffed out with his mouth full of water, and his black eyes staring.

After that Miss Pearson sent her things to an Irishwoman, who scrubbed

them to pieces within a month, and to the laundry of Fah Chung knew them no more. Alas!

His second mistake—a fatal one—sprang from a national difference of views regarding death and all things appertaining thereto which exists between the extreme East and the West.

He sent her a most gorgeous and comfortable coffin—life size—for a Christmas present.

Anyone in China would have been flattered no end by such a splendid gift. Miss Pearson did not seem to like it.

In fact, she took it as an intimation on the Celestial's part that the "wooden overcoat"—as they are facetiously termed in the States—would presently have a wearer, whom he, in remembrance of the scene in the laundry, would gladly provide.

It is probable that Fah Chung would have been kicked farther down the street than he was but that Caldwell, who was in the drawing-room when the gift was presented, had to leave him just then.

Miss Pearson in her agitation seemed to require some one to hold her in his arms, and call her his darling, and assure her that just as soon as he had time he would "go and finish that Chinaman." She would not let any of the other fellows do it—Mattie did not offer to—so Caldwell sacrificed himself. Good old fellow! Mattie glanced at them, and looked rather as if she could have found a use for that coffin if they had not been in such haste to pitch it into the street after its heart-broken owner.

The little Chinaman crept miserably away, wondering at the uncivilized manners of those "Western barbarians." But even then "it was true"—not to Poll, but to Pearson.

Caldwell married Miss Pearson.

Fah Chung? Ah, yes; Fah Chung. Well, he got killed one night near the Bowery.

Caldwell, at that time accepted lover to Miss Pearson, had told her that she must on no account venture into any of the streets between lower Broadway and the Bowery alone. So one evening, when he was at the hospital, she felt it her imperative duty to do so. She wandered about Mulberry Street, the Italian quarter, for a while, and did the Jewish precinct—Baxter Street—unconscious of two figures that had been following her for the last half hour.

From the top of Baxter Street there is a short, very narrow, very dark turning leading into the wide and brilliantly-lighted Bowery. This turning is very quiet. It is filled with Chinese gambling hells and opium dens. The police rather avoid the place. It rejoices in the descriptive and suggestive local name of "Dead Man's Alley." As Miss Pearson was about to enter it, she was stopped by a Chinaman, who motioned her not to come that way. Recognizing Fah Chung she indignantly brushed past him, and with great stateliness proceeded on.

Half-way between Baxter Street and the Bowery, a stealthy figure stole close behind her—another figure quickly and quietly ran between them, there was a muttered oath, a slight struggle, and something gleamed in the hand of the taller one. Just then Miss Pearson reached the Bowery, and in Dead Man's Alley one man was running swiftly and silently toward the sheltering crowds in Baxter Street, and the other, a little Chinaman, lay on the ground bleeding to death. When Miss Pearson, on reaching home, found that her purse was gone, she exclaimed:

"There! I knew that a creature who sprinkled clothes in the disgusting way he did, wasn't honest!"—*To-Dog*.

WEEDS,

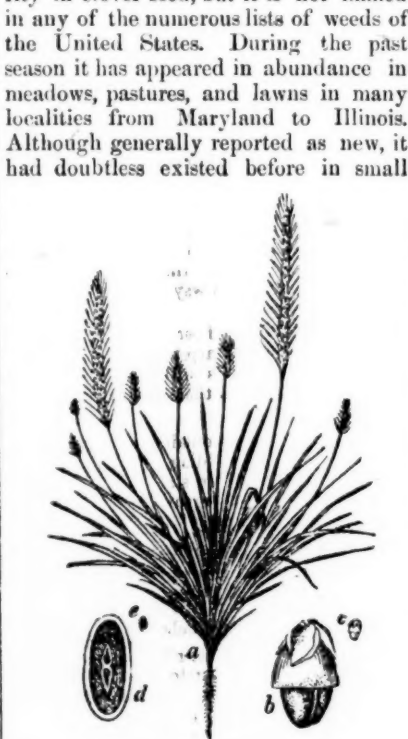
And How to Kill Them

BY LESTER H. DEWEY.

(From Bulletin, United States Department of Agriculture.)

BRACKETED PLANTAIN (*Plantago aridula*).

This plant, although a native of the Mississippi Valley and well known to botanists since the beginning of the present century, is practically new as a weed. In a very few instances its seeds have been mentioned as a minor impurity in clover seed, but it is not named in any of the numerous lists of weeds of the United States. During the past season it has appeared in abundance in meadows, pastures, and lawns in many localities from Maryland to Illinois. Although generally reported as new, it had doubtless existed before in small



quantity and with less robust habit in many of these places. In some instances, however, it is known to have been introduced during the past season in lawn grass seed.

The bracketed plantain is an annual, sometimes a winter annual, and in some cases the roots are apparently perennial. The leaves are not killed even by severe frosts. It is closely related to the lance-

leafed plantain, or rib grass, and to the woolly plantain. The leaves, appearing almost like a tuft of rather thick, dark-green grass leaves, spring from the apex of a somewhat thickened root. The seed-bearing stems, 5 to 12 inches in height and numbering 5 to 25 on each plant, as in other plantain, are leafless and naked near the base. At first the flower spike is contracted and short, but at maturity it is 2 to 5 inches long and crowded with small flowers. Below each flower is a narrow green bract one-half to one inch long, giving the flower spike a plumelike appearance. Each flower produces two seeds in an eggshaped capsule which opens transversely, the dome-shaped lid with the persistent, papery corolla lobes falling away with the two seeds hanging in it. This kind of parachute enables the seeds to be carried a short distance by the wind. They usually fall near the parent plant, hence after the first introduction the bracketed plantain grows in dense colonies, covering the ground so thickly as to choke out all other vegetation. An average plant produces about 15 flower spikes, and an average spike bears about 100 flowers, or 200 seeds, making a total of about 3,000 seeds to the plant. The seeds are dark-brown or nearly black, oblong, concave-convex, rounded at the ends, and about one-twelfth of an inch long. They are most likely to be found as an impurity in clover seed and the heavier grass seeds.

The bracketed plantain is so low and inconspicuous and its leaves are so much like those of grass that it is not easily discernible until the flower spikes appear. Hand pulling and burning is perhaps one of the best remedies where the plants are not too abundant. If the land has become thoroughly seeded a series of hoed crops will probably be necessary to clear it out. In permanent pastures, mowing the plants as the seed stalks first appear will keep them in subjection. The mowing will have to be repeated several times, however, as the bracketed plantain sends up seed stalks from May until November.

The reports concerning this plant during the past season indicate that, if unchecked, it is likely to prove as troublesome as the rib grass which has become so widely distributed, chiefly in clover seed. The seeds of the bracketed plantain are of nearly the same size and shape as those of the rib grass, and as they ripen throughout the same season—June to November—they are just as likely to be harvested and thrashed with the clover seed.

FALSE FLAX (*Camelina sativa*). This plant, a member of the mustard family, has been introduced from Europe, where it has long been known as a troublesome weed in flax fields. It resembles flax somewhat, but has much smaller flowers and seeds, and its seed capsules are pear-shaped instead of spherical. (Fig. 11, a.) It is an annual, like shepherd's purse, peppergrass, and most of the other troublesome weeds of the mustard family. In the northern part of its range, at least, the seeds are seldom matured except on plants which grow as winter annuals. The seeds germinating in the fall produce a rosette of leaves in the same manner as the dandelion. In the spring a seed stalk is developed from the midst, and after the seeds are matured the plant dies. The seeds germinating in the spring produce plants that usually blossom during the same season, but seldom mature seeds, being killed too early by the frost.

The false flax has become abundant and troublesome as a weed in some parts of Michigan and Minnesota. It is also present in several other States, but not yet abundantly enough to cause any appreciable damage. It is most troublesome in flax and in winter wheat and rye. Pastures and meadows are also injured to a considerable extent. The seed (Fig. 11, c, d) occurs as an impurity in flaxseed and clover seed, and in some of the grass seeds, especially timothy.

Where the false flax has become abundant it may be necessary to omit winter wheat and rye from the rotation for a few years and raise crops that will permit cultivation in autumn. Spring grain crops may be grown, or hoed crops may occupy the ground during the summer. Hoed crops may be employed to best advantage, as the cultivation given to these crops will induce the false-flax seed to germinate and thus clear the land sooner. In pastures and meadows the weeds may be pulled if they have not become too abundant; but if this work has been long neglected it will probably be necessary to plow and cultivate the land.

The false flax, like most of the other weeds here treated, is not yet one of our "worst weeds." In fact, where it is most abundant there are probably other weeds that outrank it in bad qualities. This and most of the others are either comparatively recent introduction, or are as yet troublesome only in rather restricted localities. They are spreading and becoming more abundant nearly every year.

FIG. 11.—FALSE FLAX.

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SHE IS ENGAGED.

The Most Beautiful Woman In New England.

WILL HER SONS BE STATESMEN, HER DAUGHTERS MODELS OF PERFECT WOMANHOOD?

If the half of what has been said and written of woman's inhumanity to woman were true the girl whose picture is here shown would not be living to-day. According to her own words, it was another woman's letter that saved her life. Good judges who have seen this young



lady in the flesh say that she is to-day the most perfect specimen of female loveliness in New England.

She is the embodiment of that type of beauty which springs from within, and cannot be portrayed on the artist's inanimate canvas or in a newspaper illustration any more than it can be produced by outward means on the face of the living subject.

PERSONAL CHARM.

To her personal charms she adds accomplishments and a social standing. The fact that she is engaged to be married may cause susceptible young men to lose interest in her, but there are reasons why she becomes of particular interest to every woman in the land.

When a girl is engaged she is preparing to make the history of the world. Whether her sons shall be statesmen or day laborers and whether her daughters are invalids or models of perfect womanhood depends chiefly upon the engaged girl herself. And this particular girl considered herself a fit subject for a madhouse less than a year ago.

A HAPPY LIFE.

Through childhood she had been so carefully guarded that she had not known suffering or misery, hardly a moment's unhappiness. But suddenly there came to her a terrible revelation of woman's weakness in her own soul-racking experience. She found herself afflicted with one of the torturing ailments peculiar to her sex. The agony she endured in silence caused so complete a breakdown in body and mind that she became an object of pity to her friends and a puzzle to physicians. A horrible attack of eczema, which so disfigured her that she was ashamed to show her face, added to her misery. Her case attracted wide attention; medical aid was freely sought here, there and yonder, but without success. The doctors' remedies and health resorts proved equally futile. It was while in the South, when she had been brought to the verge of human endurance, and when her reason seemed about to be swallowed up in suffering, that her friends learned how Mrs. J. F. Smith, of Oakbrook, Cleburne Co., Ala., had been rescued from a similar ordeal.

PROFOUNDLY HOPELESS.

This lady wrote: "Four of the best doctors treated my case for years. They all gave me up as hopeless; they said I could not be cured and could not live. I suffered untold pains and misery, such as no pen can describe, for six years. I was confined to my bed most of the time. I expected to die at the end of every day. I was afflicted with 'Female Weakness'—bearing-down sensations—pain in the small of my back—my bowels costive, also palpitation of the heart. When I began taking the wonderful medicine that cured me, I could only take a few minutes at a time, I was so weak. I took Dr. Pierce's Favorite Prescription three times per day, his 'Golden Medical Discovery' three times per day, and one of Dr. Pierce's 'Pellets' every night."

"These medicines cured me. I feel as well as I ever did in my life. Through the will of God, and these medicines, I have been restored to the best of health."

HUNDREDS OF DOLLARS LOST.

Another letter figures in the remarkable experience of this Massachusetts girl. It was written by Mrs. John G. Foster, 33 Chapin Street, Cambridge, N. Y., and reads: "I was troubled with eczema, or skin, seven years. I doctored with a number of our home physicians and received no benefit whatever. I also took treatment from physicians in Rochester, New York, Philadelphia, Jersey City, Birmingham, and received no benefit from them. In fact, I have paid out hundreds of dollars to the doctors without benefit. My brother came to visit us from the West, and he told me to try Dr. Pierce's Golden Medical Discovery. It had cured him. I have taken ten bottles of the 'Discovery' and am entirely cured. I have paid out hundreds of dollars to the doctors without benefit. My brother came to visit us from the West, and he told me to try Dr. Pierce's Golden Medical Discovery. It had cured him. I have taken ten bottles of the 'Discovery' and am entirely cured."

"It was these letters," says the beautiful young woman whose picture is here given, "that saved my life, for they induced me to try Dr. Pierce's Favorite Prescription, and his Golden Medical Discovery."

"These remedies rescued me from a helpless, hopeless condition of agonizing suffering, from which neither physicians, friends, faith, nor hope were able to rescue me."

Her perfect face, features, and form, tell more forcibly than words, how remarkable her rescue has been. The medicine mentioned above, used conjointly, as therein explained, constitute a scientific and effective course of remedial treatment for a great variety of chronic or lingering maladies.

Dr. Pierce's Favorite Prescription is a cure for thousands of suffering women. It is a perfect specific for the troubles peculiar to them. It emollicates the disease, stops the dragging, life-sapping drain, and in a perfectly rational, natural way builds up the wasted strength. It will bring buoyant health. It will put roses into pale faces—solid flesh in sunken places. It does away with the humiliating examinations and "local treatment" so much dreaded by modestly sensitive women.

Every disorder that can be reached through the blood, yields to the purifying qualities of Dr. Pierce's Golden Medical Discovery. Besides, it builds up wholesome flesh and strength; not merely fat, like filthy cod liver oil, but solid muscle. As an appetizing, restorative tonic, to repel disease and build up the needed flesh and strength, there's nothing to equal it. It rouses every organ into healthful action, purifies and enriches the blood, braces up the whole system, and restores health and vigor.

A GREAT BOOK FREE.

When Dr. Pierce published the first edition of his work, The People's Common Sense Medical Adviser, he announced that over 650,000 copies had been sold at the regular price, \$1.50 per copy, the profit on which would repay him for the great amount of labor and money expended in producing it, he would distribute the next half million free.



As this number of copies has already been sold, it is now distributing absolutely free, 500,000 copies of this most complete, interesting and valuable common sense medical work ever published—the recipient only being required to mail to him or her the World's Dispensary Medical Association of Buffalo, N. Y., of which he is president, this little COUPON NUMBER twenty-one (21) one-cent stamps to cover cost of mailing only, and the book will be sent post-paid. It is a veritable medical library, complete in one volume. It contains over 1,600 pages and more than 300 illustrations. Several finely illustrated chapters are devoted to the careful consideration, in plain language, of diseases peculiar to women and their successful home-treatment without the aid of a physician and without having to submit to dreaded "examinations" and the stereotyped "local applications," so repulsive to the modestly sensitive woman. The Free Edition is precisely the same as that sold at \$1.50, except only that the book is bound in strong, manilla paper covers instead of cloth. Send now before all are given away. They are going off rapidly, therefore, do not delay sending immediately if in want of one.

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